NATIONAL AND INTERNATIONAL ASPECTS

OF THE LAW RELATING TO AVIATION

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PREFACE

In this thesis the events leading up to the International Convention of 1919 for the Regulation of Aerial Navigation are briefly outlined,and the position in Australia regarding -- legislation on air navigation examined. Various Articles of the International Convention are then discussed from the international aspect. Our Commonwealth is one of the parties to this Convention. The Commonwealth legislation and the manner in which it gives effect to the principles of the Convention are therefore the principal matters discussed when dealing with the subject of air navigation from the national aspect. By way of comparison the legislation of other countries,particularly Great Britain,relating to the points discussed,has been examined.

The whole of the work on the Australian legislation,both Commonwealth and State,and the comparison of the various -- Commonwealth Regulations with those of other countries is original. The acts,regulations,etc.,from which the -- information on these matters has been obtained,are stated in the notes throughout the thesis. References are given to the works of those writers from which information relating to the International Convention has been obtained. The question of trespass as affecting aviators is dealt with at length,and this has involved consideration of the effect of the maxim "cuius est solum eius est usque ad coelum et ad inferos". It is a matter of vital importance so far as air navigation is concerned,and yet is one on which there is great difference of opinion. In the English legislation special provision is made releasing aviators on certain -- conditions from liability for trespass,but in the Commonwealth legislation the matter is not mentioned. The -- examination of cases and texts bearing on this question is the writers own research work,and was completed before the receipt of Dr McNair's book,the Law of the Air. The

object has been to examine cases over as wide a period as possible dealing with the interpretation placed upon the above-mentioned maxim.

In addition to the International Convention and the Bulletins of the International Commission for Air Navigation, and the various Acts and Regulations to which reference is made in the thesis, the following works have been consulted :-

Abbott, Law of Merchant Ships and Seamen (14th Edit.)

British Year Books of International Law

Clarke & Lindsell, Law of Torts (5th Edit.)

Hall, International Law (7th Edit.)

Hazeltine, Law of the Air (1911)

Halsbury, Laws of England

Lawrence, Principles of International Law (6th Edit.)

McNair, Law of the Air (1932)

Pitt Cobbett, Leading Cases on International Law

Pollock, Law of Torts (13th Edit.)

Salmond, Law of Torts (7th Edit.)

Spaight, Aircraft in Peace and the Law (1919)

Thomson, Lord, Air Facts and Problems (1927)

Wingfield & Sparkes, The Law in Relation to Aircraft (1928)

Various periodicals, e.g. "The Scientific American", "Economica", "The Australian Law Journal".

NATIONAL AND INTERNATIONAL ASPECTS OF THE LAW RELATING TO AVIATION

REFERENCES

Throughout this thesis the following references have been used in order to avoid unnecessary repetition :-

The International Convention relating to the Regulation of Aerial Navigation, dated 13th October 1919, is referred to as the International Convention.

Commonwealth Statutory Rules 1921 No:33 and amendments are referred to as the Commonwealth Air Navigation Regulations, or in some places as the Commonwealth or the Australian Regulations.

Commonwealth Statutory Rules 1927 No:118, cited as the Air Navigation (Investigation of Accidents) Regulations, and 1929 No:48, cited as the Air Navigation (Enquiry Committee) -- Regulations, are referred to as such, in order to avoid any confusion.

The English Air Navigation Act 1920, 10 & 11 Geo.V Ch.80, is referred to as the English Air Navigation Act.

The English Air Navigation (Consolidation) Order, 1923, and its amendments, issued in pursuance of the last mentioned Act, are referred to as the English Consolidated Order.

The Air Navigation Directions 1930 and 1931 (A.N.D.10, 10A and 10B), issued by the Secretary of State for Air under the English Air Navigation (Consolidation) Order 1923, are -- referred to as the English Air Navigation Directions.

NATIONAL AND INTERNATIONAL ASPECTS OF THE LAW RELATING TO AVIATION

Within the past two decades man has added to the earth and the sea the third element, the air, as a medium of transport and has thereby created a new group of legal problems, upon the solution of which the full development of aviation, particularly commercial aviation, will depend. Each year there is a marked expansion of this phase of modern life which is at once an industry, a transportation system, a sport, and an adjunct to other kinds of business. As a means of transport, aircraft are becoming increasingly important. Their speed and ever-extending range of activity have brought the nations into closer contact than ever before. Lord Thomson, in his work on "Air Facts and Problems", has pointed out that nations will be tested in the future by their attitude towards aviation, and the efficiency and progress of any nation will largely depend on its acquisition of "air-sense". No state can afford to lag behind other states in the development of means of communication, both internal and with outside states. From the beginning it has been realised that uniformity in national laws relating to aviation would be a very large factor in encouraging this method of international communication.

International Conferences and Conventions

In 1910 an International Conference upon aerial navigation was held at Paris. Although it considered a draft code, drawn up by M. Fauchille, no agreement was reached. In the years following the subject was widely considered by various international bodies of legal experts with a view to formulating an international convention. Following upon the conclusion of the Treaty of Versailles, an International Conference was held in Paris in 1919, as a result of which a Convention relating to the regulation of Aerial Navigation was drawn up. Twenty-seven states signed this Convention but did not all ratify. Several

other states have since adhered to the Convention,under provisions contained therein and permitting such a course; so that the parties to it are now the following twenty nine :- Australia,Belgium,Bulgaria,Canada,Chile,Czecho-Slovakia,Denmark, Finland,France,Great Britain and Northern Ireland,Greece,Holland, India,Iraq,Irish Free State,Italy,Japan,New Zealand,Norway,Persia, Poland,Portugal,Roumania,Saar Territory,Siam,South Africa,Sweden, Uruguay,and Yugoslavia.

It is interesting to note that since the signing of this International Convention in 1919,two other groups of states have signed conventions dealing with air navigation. In November 1926 the Ibero-American Convention was signed at Madrid,and has been ratified by Argentine,Costa Rica,Dominican Republic,Mexico, Salvador,Paraguay,and Spain. In February 1928 at Havana the Pan-American Convention relating to commercial aviation was signed and it has been ratified by Guatemala,Mexico,Nicaragua,Panama,and the United States of America. Thus the law relating to air navigation has had a unique development in that it is largely the result of international agreements which have afterwards been embodied in national laws.

The International Convention of 1919

The International Convention of 1919 has been drawn up in the form of Articles and Annexes. The Articles which number forty three deal with matters of principle and are divided into nine chapters under the following headings:- (1) General Principles (2) Nationality of Aircraft (3) Certificates of Airworthiness and Competency (4) Admission to Air Navigation above Foreign Territory (5) Rules to be observed on departure,under way and on landing (6) Prohibited Transport (7) State Aircraft (8) International Commission for Air Navigation (9) Final Provisions. The Annexes are eight in number and contain detailed regulations for aerial navigators. They complete the provisions of the Convention and,subject to alterations made in accordance with the Convention,have the same effect as the Convention itself (See Article 39).

For the purposes of the International Convention the British Dominions and India are to be deemed to be states (See Article 40). By reason of its geographical position and the fact that it is a continent belonging entirely to one nation, our Australian Commonwealth has some problems peculiar to itself. From the national aspect of air navigation it is therefore proposed to deal principally with the manner in which the principles of the International Convention of 1919 have been applied to the Commonwealth. By way of comparison the English legislation on the different points under consideration will be examined and in some cases the legislation of other countries as well.

Australia: Commonwealth and State Legislation

To apply the provisions of the Convention to Australia our Commonwealth Parliament passed the "Air Navigation Act 1920" (No.50 of 1920). This Act provides that the Governor-General may make regulations for the purpose of carrying out and giving effect to the Convention and the provisions of any amendment of the Convention made under Article 34 thereof, and for the purpose of providing for the control of air navigation in the Commonwealth and the Territories. In pursuance of this Act, Statutory Rules No.33 of 1921 (and five amendments)(*1) and No.118 of 1927 have been issued, the former as amended being known as the Air Navigation Regulations, and the latter as the Air Navigation (Investigation of Accidents) Regulations, and also Statutory Rules No.48 of 1929, known as the Air Navigation (Enquiry Committee) Regulations.

The passing of this Act raises some constitutional difficulties which have yet to be solved. The Commonwealth of Australia Constitution Act (63 and 64 Vict.Ch.12) does not confer upon the Commonwealth Parliament power to legislate regarding aerial navigation.

In an article dealing with Commonwealth powers in regard to Aviation, Mr F.F.Knight says(*2): "It is submitted that the Commonwealth has the same powers under the Constitution to

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(*1) Statutory Rules No.148 of 1927, No.49 of 1929, No.8 of 1931, No.41 of 1931, and No.8 of 1932.
(*2) Aust.Law Journal Vol.3 No.3 Page 74

legislate in respect of aviation as it has in respect of motor transport or horse racing. It is conceded that Commonwealth legislation may require private aerodromes to permit Air Force machines to land in them,aeroplanes carrying mails to comply with certain conditions,or interstate aerial passenger services to have their pilots subjected to certain tests of skill. Such legislation would be valid,not because it is in respect of aviation,but because it is in respect of defence,posts and telegraphs,and interstate commerce."

Under Section 51 (xxxvii) of the Constitution Act,the Commonwealth Parliament is given power to make laws for the peace, order and good government of the Commonwealth,with respect to "matters referred to the Parliament of the Commonwealth by the Parliament or Parliaments of any State or States but so that the law shall extend only to States by whose Parliaments the matter is referred or which afterwards adopt the law".

A Conference of the Premiers of the Australian States was held in May 1920 at which the following three resolutions with reference to the control of aviation were passed :-

1. That it is desirable that each of the Parliaments of the States should refer to the Parliament of the Commonwealth, pursuant to Section 51 (xxxvii) of the Commonwealth of Australia Constitution Act,the matter of the control of air navigation,but so as to retain to each state :-

   (a) the right to own and/or use for the purposes of the Government of the State aircraft operating within the State; and

   (b) the police powers of the State.

2. That it is desirable that (pending the passing of legislation by the Parliament of the Commonwealth,pursuant to such reference) the States should each enact legislation similar to the Imperial Act 9 George V. Chapter 3,so as to secure uniform legislation and regulations.

3. That the Premier of New South Wales,as Executive Officer,be requested to draft and submit to the State Governments :-

(a) a Bill to provide for the reference to the Parliament of the Commonwealth of the necessary powers in accordance with the terms of paragraph (1) of the foregoing -- -- resolution; and

(b) a Bill to provide for uniform action by the States, pending the passage of Commonwealth legislation

None of the States enacted any legislation in pursuance of -- Resolution 2 above, and the Commonwealth Air Navigation Act which was assented to on the 2nd December 1920 was the first -- -- legislation in Australia dealing with the control of aviation. In that same month, Resolution 1 was given effect to by the -- Tasmanian Parliament by the Act 11 George V No:42 and by the Victorian Parliament by the Act No:3108.

On the 11th February 1921 Air Navigation Regulations (*1) under the Commonwealth Air Navigation Act 1920 were issued "to come into operation forthwith." But it should be noted that it was not until 24th March 1921 that the Proclamation under Section 2 of the Commonwealth Air Navigation Act 1920 was issued fixing the 28th March 1921 as the date upon which that Act should -- commence, and, despite the fact that at that time only Tasmania and Victoria had given the Commonwealth Parliament power to legislate on this matter, such Proclamation purported to apply to all the States. It was not until November 1921 that the -- Queensland Parliament by the Act 12 George V No:30 and the South Australian Parliament by the Act No:1469 referred any matters relating to aviation to the Commonwealth Parliament, while New South Wales and West Australia have not yet passed any legislation for this purpose.

From the wording of Resolution 3 - that the Premier of New South Wales should be requested to draft and submit to the State Governments Bills for the purposes outlined in Resolutions 1 and 2-it was obviously intended that the legislation by all the -- States should be in the same terms. But of the four State Acts that have been passed, only the Tasmanian and Queensland conform strictly to Resolution 1.

(*1) Statutory Rules 1921 No:33

The preambles to the four Acts differ but slightly in their explanation of the position. They all recite the legislative power of the Parliament of the Commonwealth under Section 51 (xxxvii): the signing at Paris of the International Convention on the 13th October 1919: the expediency of the Commonwealth Parliament making provision for giving effect to the Convention: and the first of the above -mentioned resolutions passed at the Premiers' Conference.

By the Tasmanian Act 11 George 5 No:42 Sec.2 the control of air navigation is referred to the Parliament of the Commonwealth but the Act specially preserves absolute power to the State in regard to:- (*')

(1) the acquisition or ownership by the said State of Aircraft or aerodromes

(2) the use for the purpose of the Government of the said State of aircraft operating within the said State

(3) Police powers

The Queensland Act 12 George 5 No:30 is in the same terms as the Tasmanian Act

The Victorian Act No:3108 has been followed in the South Australian Act No:1469. Both refer to the Parliament of the Commonwealth the following matters:-

(1) any matter necessary or proper for performing the obligations of the Commonwealth towards the other contracting parties arising under the International Convention of 1919 (including every annex thereto) or under any modification or amendment thereof and --

(2) Intercourse by aerial navigation between their State and any other country or any State of the Commonwealth

Though the matters referred by Tasmania and Queensland are more general than those referred by Victoria and South Australia the Commonwealth Parliament has not, by reason thereof, professed to legislate more fully for the two former States than for the two latter. Questions may arise particularly in Victoria and

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(*') See Commonwealth Air Nav. Regulation 4 (1) dealing with these exemptions

Extent of validity of Commonwealth legislation

South Australia, as to the validity of provisions contained in the Commonwealth legislation. In R. v Burah (3 A.C. at pp. 904-905) Lord Selborne, in speaking of the case where a question arises as to whether any given legislation exceeds the power -- granted, says:- "The established Courts of Justice, when a question arises whether the prescribed limits have been exceeded, must of necessity determine that question: and the only way in which -- they can properly do so is by looking to the terms of the -- -- instrument by which, affirmatively the legislative powers are created, and by which, negatively, they are restricted. If what has been done is legislation within the general scope of the affirmative words which give the power, and if it violates no express condition or restriction by which that power is limited, it is not for any court of justice to enquire further or to -- enlarge constructively those conditions and restrictions." Now, as certain of the Commonwealth regulations are contrary to the provisions of the International Convention, they cannot -- apply in Victoria and South Australia, because those states have not given full power to the Commonwealth. In effect, therefore, the present Commonwealth legislation applies more fully to -- Queensland and Tasmania than to the other two States. On the other hand, as will be seen later, no attempt has been made in the Commonwealth legislation to give effect to certain -- -- provisions of the International Convention. It is open only to Victoria and South Australia to require the Commonwealth to rectify these omissions, but when those provisions have been inserted they will affect not only those two States but -- -- Queensland and Tasmania also.

So far as Victoria and South Australia are concerned, legislation enacted by the Commonwealth by virtue of Paragraph 2 of their Acts of reference must not be contrary to the provisions of the International Convention and its amendments, since the Commonwealth is responsible under Paragraph 1 of those Acts for passing legislation to give effect to that Convention and its amendments.

As a result of the existing State legislation, Commonwealth

legislation which is to apply equally to all four States is valid only in so far as it gives effect to the International Convention and its amendments or makes such provision for intercourse by aerial navigation between any of those four States and any other country or any State of the Commonwealth as is not contrary to the International Convention and its amendments.

It is submitted that under the present State legislation, the existing Commonwealth legislation is binding upon Tasmania and Queensland. So far as Victoria and South Australia are concerned, those provisions are ultra vires which are contrary to the provisions of the International Convention as also are any which deal with matters outside the International Convention and do not affect intercouse by aerial navigation between either of those States and any other country or any State of the Commonwealth, although some of them might be valid if issued as relating to e.g. defence, interstate commerce, as suggested above. Where the Commonwealth legislation fails to give effect to the provisions of the International Convention, it is for those two States, if they so desire, to call upon the Commonwealth to carry out properly the matters referred to them. By virtue of Section 51 (xxxvii) of the Constitution Act, the Commonwealth legislation on Air Navigation does not apply in New South Wales and West Australia.

The failure of these two States to refer control of air navigation to the Commonwealth Parliament or to adopt the Commonwealth legislation creates a very difficult position. For the Commonwealth is one of the contracting States to the International Convention, but is at present unable, so far as these two states are concerned, to carry out its duties as a signatory to such Convention. The advantages of having regulations which shall not only be uniform through-out the States of the Commonwealth but also uniform with those of most of the other nations of the world is obvious. It therefore seems most satisfactory for these two States also to refer the control of aerial navigation to the Commonwealth. In the United States of America the Federal Government has passed legislation

dealing with air navigation and applying to all the States. A number of the individual States have passed additional legislation applying to their own territory. Should New South Wales and West Australia so desire, they might allow the Commonwealth - Government to pass legislation giving effect to the International Convention and applying to them and might each pass any further legislation they consider desirable to apply in addition within their own particular territory.

Withdrawal by a State of a matter referred to Commonwealth Parliament

An important question may arise as to whether a State which has referred a matter to the Commonwealth under sub-sec. xxxvii of Section 51 of the Constitution Act can afterwards -- withdraw that matter and legislate itself. The answer to this may have a strong bearing on the extent to which a State may be disposed to refer to the Commonwealth such a vital matter as aerial navigation. Possibly this may account in some measure for the differences in the Acts under discussion.

Professor Harrison Moore in his work on the Constitution of the Commonwealth of Australia (2nd Edit) at P.485 says, in -- reference to sub-sec. xxxvii of Section 51:- "It offers a -- -- convenient method of extending the range of legislative subjects without resorting to an amendment of the Constitution. Questions of much difficulty may arise as to whether a State may withdraw a power which it has granted under this article and if it may withdraw the power, whether it can then make laws inconsistent with any which the Commonwealth Parliament has made on the -- subject. But until the power is withdrawn enactments of the Commonwealth Parliament thereunder must, it would seem, have the ordinary operation of Federal laws and prevail over State laws inconsistent therewith."

Sir John Quick in his "Legislative powers of Commonwealth & States" (1919) does not discuss this question nor does A. -- Inglis Clark in his work on the Australian Constitution; and the point does not seem to have been the subject of judicial -- -- decision.

It might be argued that as the power to legislate on matters comprised in the other sub-secs. of Sect 51 of the

Commonwealth of Australia Constitution Act is absolute and given for all time - subject of course to any amendment of that Act - the power is the same with regard to any matter referred under sub-sec. (xxxvii). But there is nothing in the Section, or that particular sub-section, stating this.

It is therefore submitted that it is possible for any of the four states which have referred to the Commonwealth the matter of serial navigation to annul their acts of reference and themselves to legislate on this matter. In that event, the Commonwealth legislation becomes ultra vires since the State legislation, by virtue of which the Commonwealth legislation was passed and took effect, has ceased to exist. If such be the correct view, the extent of the reference to the Commonwealth is not so serious as it might otherwise be. At the same time, by referring the matter in the way Victoria and South Australia have done, the States know beforehand upon what lines the -- Commonwealth must legislate, at any rate with respect to carrying out its obligations under the International Convention of 1919.

Further reference to the present position under the -- Commonwealth legislation will be made when considering in detail some of the main provisions of the International Convention and their application to Australia.

By the International Convention 1919, the complete and exclusive sovereignty of each State in the air space over its territory and the adjacent territorial waters is recognised as the legal basis of international law relating to aviation. To understand the significance of this statement it is necessary to make a brief survey of the various legal theories which have been advanced on this subject.(*)

As in the development of sea law in the 17th century, the "mare clausum doctrine" had a long struggle with the victorious principle of "mare liberum", so between 1906 and 1914 there was a struggle between two great groups of theories as to the rights

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(*) See generally Hazeltine "The Law of the Air" (first lecture); Spaight "Air craft in Peace and the Law" (Chap.1); Buxton, "Freedom of Transit in the Air" (in "Economica" of March 1926); McNair "The Law of the Air" (1932) Chap.1.

Survey of theories relating to rights of States in air-space over their territories

of states in the air-space above their territories and territorial waters. These may be designated the "freedom-of-the-air" and the "sovereignty-of-the-air" theories: and though the sovereignty theory owed its acceptance to the military considerations which arose in the Great War yet it appears to be founded on a sound and consistent theoretical basis.

Prior to 1914 the weight of expert opinion was decidedly in favour of the freedom of the air and aerial circulation. The "freedom-of-the-air" theories may be divided into two groups in the first of which the theories are based on the contention that the air is completely free and in the other on the contention that the air is only partly free.

The main argument in support of the theory that the air is completely free was that the State has no rights in the air-space above its territory since the principle of complete freedom of the air should hold in aerial law just as the principle that the high seas are completely free holds in maritime law. The acceptance of this theory would deny the territorial state any rights of ownership and sovereignty in the air space above it, and aircraft would have the right to navigate in that air space as they saw fit and to do any acts they liked without the territorial state having any right to interfere. The State would therefore be subjected to all kinds of risks (e.g. contagious disease and espionage) without being able to take any action, and would even be denied the right of preservation. The analogy of the sea has been severely criticised, for the sea is not necessary to the existence of a State, while the air in the air space over a State's territory is, since without it there could be no life in the State's territory at all.

The publicists who maintained that the air is partly free may themselves be divided into two groups, both of which allow the territorial state to exercise certain rights in the air-space above it for its conservation and preservation, the one without limiting their exercise as to height, but the other

and larger group limiting such exercise to a restricted zone of the air-space. Many of these theories are based on the analogy of the high sea and those in the latter group fix by various methods an aerial zone above the earth within which the state could exercise rights of conservation. From the point of view of aerial navigation the most important of these publicists is M.Fauchille,who prepared draft codes for the regulation of aerial matters which have been discussed at conventions of prominent legal bodies. He considered that the air cannot be actually and continuously occupied,and therefore there can be no proprietary rights in the air: consequently it cannot be subject to the sovereignty of the territorial state,as sovereignty implies the possibility of occupation. Therefore he contended the air is free. But unlimited freedom would be dangerous for the security and existence of the territorial state. To preserve its own existence a state must be allowed to take any necessary measures,not only upon its territory but upon those things which belong to no one. Therefore the state must be allowed to take such measures in the air; for that is a res nullius. In short, he contended that the only rights a state has in the air are those which are indispensable to its preservation and defence. Among the measures he considered necessary for the security of the state's population is the prohibition of the circulation of aircraft below a certain height. The great difficulty he found was to fix the height of the zone of air from which aircraft should be excluded. Finally he placed it at 500 metres above the earth's survace.

Numerous objections have been advanced against these theories of limited freedom. After taking into account the rights these theories allow the territorial state,whether without limit in height or within a certain fixed zone,it is difficult to find much idea of freedom left. The analogy of the high sea upon which these theories are generally founded is not sound. No account is taken of vital differences between the sea and the air in their respective relations to

land. The sea lies to the side of the state's territory, the air directly over it. The further ships go from the land, the less can they injure the state's interests,whereas the higher aircraft sail the greater becomes the danger to the land below from weapons of destruction hurled from them. Consequently a zone of air fringing the land is no protection to the state lying below from the danger of weapons hurled from airships sailing in the higher regions. Some of these theorists have based the state's rights in the air zone that fringes its territory on the analogy of the state's rights over the territorial waters that fringe its coasts. But, according to the prevailing view,the state has rights of sovereignty over those particular waters. Moreover this water zone is not vital to the existence and welfare of the territorial state. If the state were limited by its coast-line it could still exist and defend itself. But the air zone which fringes the state's territory is vital to the existence of its inhabitants and to the very exercise of the state's rights and all its activities. This doctrine of a zone of protection seems to have been evolved so that freedom of the air could be advocated without denying to the -- -- territorial state rights which are absolutely necessary to its existence,even at the expense of the unlimited freedom of aerial navigation. But it has been pointed out that those who claim that,while circulation is free,subjacent states have all the rights necessary for their preservation, must have something on which to base those rights,and that something can be nothing more nor less than sovereignty.

The "sovereignty-of-the-air" theories may also be divided into two main groups,the first comprising those which claim that the State's sovereignty extends only up to a certain limited height,and the other those which claim for the state full sovereign rights in the air-space up to an indefinite height.

In the first group we have again the idea of an aerial zone,but in this case,full sovereign rights,not merely certain

restricted rights,are given within this zone. There is great difference of opinion as to the upper limit of the zone and the method of fixing that limit,some writers preferring a definite limit of measurement,others fixing it by the range of artillery or of aerial navigation itself.

The difficulty of fixing the height of this sovereignty zone is obvious. The range of artillery will differ from age to age,while a height fixed by some definite measurement (e.g. so many feet) will rest purely on international agreement and apart from such agreement would have no sound and reasonable basis. The analogy of territorial coastal waters is unsound as applied in this theory also,for ,as already pointed out, this water zone is not vital to the existence of the state while the airzone fringing the state's territory is. The interests of the territorial state would not be protected by this system of dividing the airspace into two zones,since in the higher zone,which would be free,acts which would injure the territorial state lying below and its inhabitants could be done without that state having any right to interfere.

Among the theorists who hold that the state has full sovereign rights in the air space without limit of height may be mentioned a group which considers that the sovereignty is limited by a right of innocent free passage for all aerial navigators as the development of aviation could otherwise be prevented by any state. They apparently disregard the fact that if the state has sovereignty in the air space,in any case where there is a doubt as to whether a passage is innocent or not,freedom of passage must yield to the state's sovereign right,and the passage be prohibited. Aerial navigation can be furthered and the rights of the territorial state protected without any such limitation,as proposed,of the state's sovereignty. No state is likely to injure its own interests by preventing the development of aviation which can be fully encouraged and regulated by international agreement, while at the same time the state can be safe-guarded.

The main group of the theorists who supported the sovereign

of the air theory gives the State full sovereign rights in the entire air space up to an indefinite height. They based their theories,generally speaking,on the necessity for a state to guard itself against the dangers incident to air navigation. Absolute sovereignty in the entire air-space above it gives the state power to decide for itself whether to allow aircraft to fly in its air space,and it can regulate as it wishes the navigation of its air space. These -- publicists contend that this absolute sovereignty is -- exercised in the air space itself,and it does not matter that the element filling that air-space at any given moment is an element fluid and mobile,just as in the case of those territorial waters which are recognised as being within the limits of the state's sovereignty the actual water itself is both fluid and mobile. Though it is not possible to define each state's aerial frontiers by solid,fixed boundary marks, as can be done on land,such frontiers can exist in the same way as a maritime frontier between territorial waters and the high sea,which though not physically indicated,is recognised as existing. Further the existence of this sovereign right does not depend on its being continuously and actively asserted. There are many large stretches of sea and land within the sovereignty of various states but over which no one passes for long periods. The state's sovereign rights can be exercised in the air space by means of cannon and of aerial fleets,just as its soverign rights are exercised in its territory and on its territorial waters by its army and navy. States have long considered themselves as having the right of sovereignty in the air space above their territory and territorial waters. In times of peace this sovereignty is exercised mainly in the air-space near to the earth's surface e.g. take legislation dealing with heights of structures. But in various laws this sovereignty has been asserted in higher regions of the air space e.g. laws relating to wireless telegraphy. Many systems of law recognize that the owner of land owns up to the heavens,thereby showing the state has the

right to grant to land-owners such an extensive proprietary right in the air space. Even prior to the Great War, States forbade the crossing of large portions of their aerial frontiers, and also prohibited flight over large stretches of their territories. When war came, States absolutely closed their aerial frontiers and forbade the entry of foreign aircraft into their air.

The advantages of the recognition of this doctrine of full sovereignty are many. The interests of the State itself and the rights and interests of its inhabitants can be safeguarded, without preventing the proper and legitimate development of aerial navigation; for progressive States will be anxious to encourage this important means of international communication. The necessity of defining any horizontal limit for a lower zone of sovereignty is removed as a result of the State's sovereignty in the entire air space. This doctrine has the great advantage of simplicity, for the air space above each state is subject to the same authority as the state itself, while the air space above the high seas is, like them, free to all.

The objection has been advanced that sovereignty implies a fixed and lasting material mastery by possession and it is physically impossible for a state to exercise such a power and control over the atmosphere. But, as pointed out earlier, actual physical possession of the air-currents is not essential: the ability to enforce effectually the State's rules in the air space is sufficient. It was also contended that if the State were given full sovereignty, it could close the atmosphere to aerial navigation and make it impossible to navigate in the air space at all: thereby uniform and international regulation of aerial transit would be prevented. While this was admitted it was considered that self-interest would prevent any progressive state adopting this policy in times of peace. The remarkable progress already made in uniform international regulation of aerial navigation confirms this view.

Having thus briefly surveyed the theories propounded as

Influence of various theories on legislation

the basis for laws to govern aviation, it is interesting to note the influence they have had on national and international -- legislation. In 1906 at Ghent, the Institute of International Law discussed the theoretical basis of a law of the air, in connection with the question of wireless telegraphy. The following resolution was passed by a large majority: - "The air is free. States have only such rights over it in time of peace as are necessary for their preservation." At its meeting in March 1909, the discussions of this same body showed that there was greater division of opinion on this point than at the meeting in 1906.

At the International Conference of 1910 at Paris, opinion was so divided that no agreement was reached upon the question of sovereignty or freedom of the air. Germany proposed freedom of transit in the air space for the air vessels of all nations, but Great Britain on the ground of military considerations -- -- supported the theory of absolute sovereignty. The British Foreign Office in a despatch to the British representative contended that to grant, by international law, the right to foreign aircraft to fly at will over the territory of the State, would give them undesirable opportunities for espionage, and that such a right would limit "the elementary right of a state to take each and every measure which it considers necessary for self preservation." The majority of the representatives of the European States at that Conference supported the German proposal.

In 1911 The Institute of International Law at its meeting at Madrid, and the Comite juridique international de l'aviation at its meeting at Paris both accepted the principle of free circulation. But in 1913 The International Law Association in its session at Madrid approved the principle of State sovereignty.

Prior to the Great War, Great Britain, Russia, Italy, Austria, and France all passed legislation forbidding the crossing of extensive portions of their air frontiers and prohibiting the navigation of aircraft over areas of special military importance. Even Germany, in July 1913, was about to accept tentatively the doctrine of absolute sovereignty as the basis of an arrangement

with France for commercial aviation.

Upon the outbreak of war in 1914 air frontiers were -- absolutely closed to aerial traffic,and moreover not only -- those of the belligerents but also those of many neutral -- states e.g. Holland,Sweden,Spain. The rules enforced by the neutral Powers treated neutral atmosphere in the same manner as neutral territory. Prior to the war some writers had expected that if sovereignty of the air was claimed it would be a sovereignty similar to that exercised by States over their territorial waters.

Others had argued that,like warships,belligerent aircraft entering neutral territory from the coast-line should be -- allowed to seek an asylum and effect necessary repairs,provided they left again within a defined period,if they came from the sea. Others again contended for the right of entry into neutral territory for belligerent air craft under force majeure and/of subsequent departure. But,in the practice of the war,the air space above neutral territory was treated,just as the neutral land itself,as absolutely closed to belligerents. The entry of a belligerent aircraft into neutral atmosphere justified the neutral State concerned in interning such aircraft,or firing upon it,if it did not land. This course of action was repeatedly adopted by neutral powers,particularly Holland,with reference to offending belligerent aircraft,and even Germany showed her acceptance of the principle of the sovereignty of the air,by ordering her airmen not to fly over neutral territory,and repeatedly expressed regret when they did so.

Thus the precedents of the Great War definitely established the principle that States control the air space over their territories,and the absolute prohibition of aerial passage during the War disposed of the view that this -- sovereignty of States is a restricted sovereignty.

In the actual peace treaties concluded after the Great War,air transit is dealt with in a vague manner. These treaties contain hardly any permanent provisions relating to

commercial aviation,and none at all dealing specifically with international air transit. The object of many of the Powers has been to secure freedom of international transit and -- equitable treatment of international commerce. This object is embodied in Article 23 of The Convention of the League of Nations. In the peace treaties this matter has been dealt with mainly in so far as international waterways and railways are concerned. But commercial aviation was dealt with in the Air Convention,which was signed at Paris in October 1919 and under which an International Commission for Air Navigation was established and charged with many duties. It really serves as an intelligence bureau,a meeting ground of experts of the various nations,where principles of law relating to aviation may be discussed and new regulations framed to meet the needs of this rapidly developing means of international communication.

Provisions of International Convention of 1919

The Convention relating to International Air Navigation 1919,first accepts the doctrine of sovereignty usque ad coelum. By Article 1 the contracting States recognise that every State has complete and exclusive sovereignty in the air space above its territory and territorial waters. Under -- Article 2,in the time of peace,freedom of innocent passage above the territory and territorial waters of each contracting state and of its Colonies is given to the aircraft of all the other contracting states,provided that the conditions -- -- established in the Convention are observed. But the strength of the recognition of sovereignty is not abated by a concession of this kind. Further it must be noted that no right of landing in another State's territory is granted,and under Article 15 an aircraft flying across another state must follow the route fixed by the latter State,and must land,if required,at one of the aerodromes fixed by the latter. Again under Article 3 of the Convention,each contracting State is entitled for military reasons or in the interest of public safety,to prohibit flying over certain areas. An aircraft that finds itself above a prohibited area is to land as near to it as possible and as soon as possible.

Rights of landowners in Australia in the air-space above their lands

It is therefore necessary to consider what rights the landowners of Australia have in the air space above their own land in order to determine whether any modification of those rights will be needed to enable our Commonwealth to give effect to the principles of the Convention just stated and the rules contained in its annexes relating to them.

Our law is founded upon English law and for many centuries English lawyers have advanced the doctrine that the land-owners right in his land extends upwards to the heavens and downwards to the uttermost depths. This is usually stated in the form of the old maxim "Cuius est solum eius est usque ad coelum et ad inferos" which has been attributed to the Roman code but is really a "gloss" upon Roman law,which has been traced to Accursius. Not only has this maxim exercised a great -- influence on the development of the English common law but it is found in the codes of many civilized countries. Reference to it is found in the early English writers. The law reporter Croke states that the maxim "cuius est solum eius est summitas usque ad coelum" had always,from Edward I's time,been a maxim of the English Courts. Lord Coke,in his comments on Littleton, states: "The earth hath in law a great extent upwards,not only of water,as hath been said,but of air and all other things, even up to the heavens,for cuius est solum eius est usque ad coelum". Blackstone too says: "Land hath also in its legal signification a definite extent upwards as well as downwards; cuius est solum eius est usque ad coelum is the maxim of the law upwards; therefore no man may erect any buildings or assume the right to overhang another's land; and downwards whatever is in a direct line between the surface of his own land and the centre of the earth belongs to the owner of the surface, as is every day's experience in the mining countries. So that the word land includes not only the surface of the earth, but everything under it and over it . . . . . by the name of land,which is nomen generalissimum,everything terrestrial will pass".

It is obvious that if the doctrine stated by these writers

is interpreted strictly,every airman,however high he may fly, would technically be a constant trespasser and liable to proceedings by every landowner over whose property he passed in the course of his flight. There seems to have been no decision in Australian Courts or in English Courts as to -- whether the passage of aircraft through the air space over a person's land constitutes a trespass. But there are a number of decisions analogous to the flight of an air vessel,and in numerous other judgments references are made to the maxim quoted above.

Examination of cases

Baten's case

In Baten's Case (1610)(*1) the Plaintiff's declaration -- stated that the Defendant had wrongfully erected on his freehold a house so near the Plaintiff's that part of it jutted over the Plaintiff's house to the nuisance of the frank tenement of the Plaintiff. It was held that in the circumstances the -- Plaintiff need not assign any special nuisance as it was -- apparent to the Court that it was to the Plaintiff's nuisance, for here the defendant had built a new house overhanging the Plaintiff's; also "cuius est solum eius est usque ad coelum".

Doe d. Freeland v Burt

In 1787 the maxim was referred to in the case of Doe d. Freeland v Burt(*2). Certain premises in Westminister,particularly described,were leased to the Defendant. Portion of same was a yard. The whole premises were described as having been lately in the occupation of A. Under the yard was a vault,which had not been so occupied,but which the Defendant claimed was comprised in the lease,resting his title on the maxim "cuius est solum eius est usque ad coelum et ad inferos". In giving judgment Buller J. said:- "Where there is a conveyance in general terms of all that acre,called Black-acre,everything which belongs to Black-acre passes with it. And there the rule,which has been mentioned (i.e.cuius est solum &c.) prima facie obtains". Later in his judgment after reading the description of the premises demised,he states that in this particular case the words of the maxim "cannot receive the general construction of law". Grose J. in his judgment also refers to the maxim as being the general construction of law.

(*1) 9 Co.Rep.53 (*2) 1 Revised Reports 367

Pickering v Rudd

Another early case was Pickering v Rudd (1815)(*1). Lord Ellenborough's observations in this case are the main basis upon which are founded the arguments of those who contend that the maxim "Cuius est solum eùis est usque ad coelum" does not have its literal meaning in our law. The Defendant's house in Bernard Street adjoined Plaintiff's garden in which grew a Virginian creeper which had spread itself over the side of the Defendant's house. The Defendant,a hair-cutter,cut away -- portion of the creeper and erected on the wall of his house a sign board,which projected 3 or 4 inches from the surface of the wall. It was contended that this was a trespass. Actually it was proved that the board did not extend beyond the foundations of Defendant's house,so that Lord Ellenborough did not decide whether an encroaching board of such description would constitute a trespass upon the Plaintiff's air space: but he expressed some interesting views upon the matter. Unfortunately there is some divergence between the reports of the case. According to Starkie's report Lord Ellenborough said "You must prove that the projection is a trespass; it may be a very nice question. I recollect a case,where I held that firing a gun loaded with shot into a field was a breaking of the close. The learned judge,on the circuit with me,doubted upon the point, but many with whom I afterwards conversed on the subject,thought I was right; and the Judge himself,who at first differed from me was afterwards of the same opinion; but I never yet heard,that firing in vacuo could be considered as a trespass. No doubt,if you could prove any inconvenience to have been sustained,an -- action might be maintained,but it may be questionable whether an action on the case would not be the proper form. Would trespass lie for passing through the air in a balloon over the land of another?" When it was contended for the Plaintiff that,if the projection was not a trespass,it would be no trespass to cover the whole extent of the garden Lord -- Ellenborough said: "Undoubtedly an action would be maintainable in that case for obstructing the light,but it is another question

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(*1) Stark 58,4 Camp.219,16 The Revised Reports 777.

whether an action of trespass lies for interfering with the column of air incumbent on the land". This dictum shows that the Judge had considerable doubt on the point. But in Campbell's report of the case Lord Ellenborough said: "I do not think it is a trespass to interfere with the column of air superincumbent on the close ..... I am by no means prepared to say that firing across a field in vacuo,no part of the contents touching it,amounts to a clausum fregit. Nay, if this board overhanging the Plaintiff's garden be a trespass, it would follow that an aeronaut is liable to an action quare clausum fregit at the suit of the occupier of every field over which his balloon passes in the course of his voyage. Whether the action may be maintained would not depend upon the length of time for which the superincumbent air is invaded. If any damage arises from the object which overhangs the close,the remedy is by an action on the case".

Fay v Prentice and another

The Plaintiff's declaration in Fay v Prentice and another (1845)(*1) stated that the Defendant being possessed of a -- messuage adjoining a messuage and garden of the Plaintiff built a cornice on his messuage projecting over the Plaintiff's garden,by means whereof quantities of rain flowed from the cornice on to the garden and did damage. The Court held (inter alia) that the declaration contained no statement of a trespass. Coltman J. said:- "It may be the presumption of law that the space from the earth to the sky belongs to the owner of the soil,but that is a mere presumption,and not a matter of fact,and there is no allegation in this declaration that the Plaintiff had this extensive right. One man may have an upper chamber above the chamber of another in the same house,and therefore,for aught thatappears in the declaration, the defendant may never have trespassed upon the Plaintiff's land. Under the circumstances the question as to the right of the plaintiff to maintain this action for damages,in respect of the mere existence of the projection over his land I think could be gone into". He referred to Baten's case. Maule J.

(*1) 14 L.J.C.P. (298)

said: "I concur with Bro.Coltman in thinking that this declaration does not contain any statement of trespass. Although the rule may be "cuius est solum eius est usque ad coelum" it is by no means the presumption of law that this exisits in all cases: there may be instances in which that maxim does not apply: for example in the c ases of Chambers in the Inns of Court,it would not be true".

Electric Telegraph Co. v Overseers of Salford

In 1855 the case of The Electric Telegraph Co. V The Overseers of the Poor of Salford, (*1) was decided. The Company had fixed telegraph posts with overhead wires between same along a railway line of the London and North West Railway Company:special case as to the liability of Electric Telegraph Co. to be rated for relief of poor of Salford in respect of the "telegraph wires,posts and land in which the same are fixed". Martin B. during the argument stated: "In Burn's Justice 29th Edition Vol.4 p.190,it is laid down (citing Blackstone) that "land hath its legal signification an indefinite extent -- upwards as well as downwards, "cuius est solum eius est usque ad coelum" is the maxim of the law upwards: and downwards whatever is in a direct line between the surface of any land and the centre of the earth belongs to the owner of the -- surface. The word "land" includes not only the face of the earth but everything under it or over it". Pollock C.B. in his judgment (at p.150) says:- "I am of opinion that they (the Company) are liable. It is conceded that if the electric -- wires were carried underground,the Company would be able to be rated. So if instead of passing under the earth,the wires passed under water,would they be liable? Doubtless they would. Then are they liable if instead of passing under earth or water, the wires,as in the case here,pass through the air? To this the same anwer should be returned - they are liable. The passage read by my brother Martin from 4 Burns Justice 190 is decisive of the point,and it shows that there is no distinction between a possession obtained by passing things from fixed -- points in space and air and passing them under earth --

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(*1) 24 L.J.M.C.146

or water. The land is equally occupied in all three cases, because the estate in it extends indefinitely upwards; and consequently whether the wires pass up or down, the proprietors of them exclusively occupy a certain portion of space over which they have complete control and may exclude every one else from it.

Solomon v Vintners Co.

The maxim is again relied on in Solomon v Vintners Co. (1859)(*1) Three houses had been built against each other and were leaning considerably out of the perpendicular. On one being pulled down the others collapsed. While dealing with the question as to right of support Pollock C.B. said:- "When a house built upon the edge of a man's land gets out of the perpendicular and leans or hangs over his neighbour's land it no doubt occupies a space belonging to his neighbour, the rule of law being "cuius est solum eius est usque ad coelum".

Kenyon v Hart

In his judgment in Kenyon v Hart (1865)(*2) Blackburn J. referring to the old query of Lord Ellenborough as to a man passing over the land of another in a balloon and his doubt whether an action of trespass would lie for it, said: "I understand the good sense of that doubt, though not the legal reason for it".

Corbett v Hill

A most interesting case was that of Corbett v Hill (1870)(*3). The Plaintiff who owned two adjoining houses, 15 Philpot Lane and 34 Eastcheap, in London, sold 34 Eastcheap to Defendants "as the same was then in the occupation of the tenant" thereof. Reference was also made to a plan which was merely of the ground floor of the premises. Neither plaintiff nor defendants knew at the time of sale that one of the rooms on the first floor of 15 Philpot Lane intruded into the house 34 Eastcheap. The only access to this room, the dimensions of which were 13 feet 10 inches by 11 feet 5 inches, was from the Philpot Lane house, and the room rested partly on the Philpot Lane property and partly on the Eastcheap property, about half of

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(*1) 28 L.J. (N.S.) Exch. 374
(*2) 141 Revised Reports 400
(*3) 39 L.J. Ch. 547

it projecting into the latter property. Defendants purchased 34 Eastcheap with the intention of pulling down the buildings then standing on the land and building warehouses thereon of a considerable extent. Accordingly the Defendants pulled down the house and erected on its site new buildings under and on a level with and over the said projecting room,but such new buildings did not in any manner touch or interfere with the projecting room,except that the projecting room rested upon and was supported by the Defendant's new buildings in the same way as formerly it rested upon and was supported by the old buildings. No part of the new buildings was built beyond the limits of the site conveyed to the Defendants. The Plaintiff filed a bill claiming the space over the projecting room and praying for a declaration that the room did not form part of the hereditaments conveyed to the Defendants and that they might be restrained from building above such room.

On Plaintiff's behalf it was argued that the projecting room was not included in the conveyance to the defendants and remained the property of the plaintiff,and since it was his property,he was entitled to the space above it,usque ad coelum. In the course of his judgment James,V.C.,said:- "The ordinary rule of law is that whoever has got the "solum",whoever has got the site,is the owner of everything up to the sky and down to the centre of the earth; but that ordinary presumption of law no doubt is frequently rebutted,particularly with regard to property in towns,by the fact that other adjoining tenements in consequence of a joint ownership or from other circumstances protrude themselves over the freehold,and the question then is, whether the protrusion is a diminution of so much of the soil and freehold,including the right upwards and downwards,or whether the protrusion is not merely the right to that -- horizontal stratum limited by the ceiling on one side and the floor on the other - i.e. a flat. In my opinion this -- protruding room here was simply a protrusion of that extent and that limited character. It was a protrusion which the Plaintiff has retained as part of his house in Philpot Lane,

it does not carry with it anything above or anything below. That is,subject to the exception which has been obtained or made by reason of the protrusion,the owner of the house in Eastcheap still remains the owner of everything including the column of air,over which the supposed trespass has been made"

Ranchod Shamji v Abdulabhai Mithabhai

A similar case was that of Ranchod Shamji v Abdulabhai Mithabhai (1904).(*1) Plaintiff's beams overhung defendant's soil and defendant erected a building which overhung those beams. A question having arisen as to whether the beams gave plaintiff a right to the column of air above them: Held: defendant,being the owner of the soil,was entitled prima facie to all above it and the diminution in his rights by reason of the beams did not extend beyond the protrusion of the beams themselves.

Harvey v Walters

In Harvey v Walters (1873),(*2) further reference is made to the case of Pickering v Rudd. Plaintiff had by user acquired the right to have his eaves and gutter project over the defendant's land and to enjoy an eavesdrop therefrom upon the defendant's land. He subsequently altered the position of his eaves and gutter by raising his wall three or four courses of bricks and replacing the eaves and gutter at this higher elevation. For the Defendant it was contended that by putting out new eaves in a fresh place the plaintiff committed an actual trespass for "cuis est solum euis est usque ad coelum". Reference was then made to Fay v Prentice. In reply Pickering v Rudd was cited and reference made to Lord Ellenborough's words re aeronauts and trespass. At page 345 Bovill C.J. commented: "At that time it was not so clearly understood that it was a trespass to interfere with air". As the point reserved for decision was whether the easement was destroyed by the alteration,the judgment did not deal further with the aspect of trespass.

The case of Ellis v The Loftus Iron Company (1874)(*3) shows how slight need be an invasion of property to constitute a trespass. Defendants were occupiers of a plot of land which

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(*1) I.L.R.28 Bom.428 (India) - Eng.and Empire Digest Vol.38p.65
(*2) 28 L.T. (N.S.) 343
(*3) 44 L.J.C.P. 24

Ellis v Loftus Iron Co.

was separated from a field of the plaintiff's by a wire fence. Defendants turned a horse into their plot and plaintiff a mare into his field. The horse and the mare got together on either side of the fence and the horse by biting and kicking through the fence injured the mare. The Judge at the hearing held there was no case to go to the jury. On appeal it was held that the horse when biting and kicking through the fence must have had his mouth and legs over the plaintiff's soil and this was in law a trespass,although it was a very small one,and the defendants were responsible for the consequences. Denman J. said: "At one time during the argument I inclined to think it a strong proposition to lay down that a trespass is committed by the owner if only a part of his animal is over the soil of another. But upon considering Lee v Riley and the maxim "cuius est solum eius est usque ad coelum" I confess I cannot see how the proposition is to be answered".

The Queen v Keyn

In The Queen v Keyn (1876)(*1) when referring to a ship passing within three miles of a foreign shore or anchoring within the same distance,Grove J. said: "In the latter case the ship is availing itself of the soil which to give the country a right of interference must be assumed to be a part of the territory of that country;if so,the water over that soil must,it seems to me,also belong to that territory for cuius est solum eius est usque ad coelum is a maxim of general application."

Coverdale v Charlton

In Coverdale v Charlton (1879)(*2) Bramwell L.J. says, at page 130,when considering the possible meanings of the word "vest" in the Public Health Act,with reference to "streets":- "The word "Vest" may mean that the property usque ad coelum and down to the centre of the earth is transferred to the person in whom the property is said to vest".

Rolls v Vestry of St George, Southwark

In Rolls v The Vestry of St George,Southwark, (1880)(*3) James L.J. in his judgment speaks of "soil and freehold", in the ordinary sense of the words "soil and freehold", that is

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(*1) 47 L.J.M.C. 17
(*2) 48 L.J.Com.Law 128
(*3) 49 L.J.(Equity) 691

to say,the soil from the centre of the earth up to an unlimited extent into space".

Metropolitan District Railway Co. v Cosh

The case of The Metropolitan District Railway Co. v Cosh (1880) (*1) was first heard by Fry J. who,at page 279,states that in its ordinary meaning land includes from the very centre of the earth to the heaven above. The case went on to the appeal Court (*2) where Jessell M.R. in the course of his judgment says that the word "land" includes everything from the heavens on the one side to the centre of the earth on the other. Cotton L.J.,at page 77,refers to "land in the ordinary sense - that is land from the centre of the earth up into the heaven".

Board of Works for Wandsworth v United Telephone Co.Ltd.

Important dicta are contained in the judgments in The Board of Works for Wandsworth v United Telephone Co.Ltd.(1884). (*3) The Plaintiffs,a local authority in whom certain streets were vested,sought to restrain the defendants from carrying -- telephone wires across streets at the leval of the chimneys of certain houses. The owners of the houses did not object,and the wires caused neither nuisance nor appreciable danger. The wires were 30 feet above the street and the question debated was the extent above and below the surface of the street which was vested in the Local Authority by statute. It was held the plaintiffs were not entitled to an injunction: that they had only such a limited statutory property in the streets,both with regard to depth below and height above the surface of the streets as was necessary for their control and for the safe and convenient user of the streetsand as the wires caused -- neither nuisance nor appreciable danger,there was no -- infringement of their right. Brett,M.R. at page 456, in the course of his judgment,says:- "I do not intend to question what was said by Lord Coke as to the effect of a conveyance or grant of land,and I do not desire to say that in such a case everything down to the centre of the earth or usque ad coelum, to use the common phrases,does not pass. But that is so because by the common law of England,when the word "land" is

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(*1) 49 L.J.Ch.
(*2) 42 L.T.R. 73
(*3) 53 L.J.Q.B. 449

used,a conveyance with that description in it does carry with it all that is implied in those phrases". Bowen L.J. in his judgment,says at Page 457:- "If the local authority simply owned the land,or if the land had become vested in them by means of an ordinary conveyance,I should be loth to suppose that the owner of such land could not object to interference with his property by any one who put anything over his land at any height whatsoever". And at Page 458 he says:- "I would add that I do not desire to infringe upon the doctrine referred to by the Master of the Rolls and embodied in the maxim "Cuius est solum eius est usque ad coelum". Fry L.J., at Page 459,after stating the Local Authority had nothing more than a proprietary title of a certain kind in the area of ordinary user and that the wires concerned were not in that area says:- "I express no opinion and certainly no doubt as to the rights of the ordinary proprietors of land: that question was not raised by this case,although as at present advised,I am of opinion that an ordinary owner of land may deal with wires placed above his land at any height,as being an infringement of his proprietary right". In the report of the case in 51 L.T.R. (N.S.) at Page 152,Bowen L.J. is reported as follows:- "If a similar question were to arise in the case of an owner of land,I should be unwilling to suggest that the landowner had not the right to object to anyone putting anything over his land".

Reilly v Booth

The case of Reilly v Booth(*') was decided in 1889. In 1839 freehold messuages had been conveyed to one Samuel Wimbush,adjoining which was a covered entrance or gateway. Following upon the description of the land conveyed,the Indenture read: "Together With the exclusive use of the said gateway into Oxford Street being 10 feet 11 inches in the clear on the North side,11 feet 7 inches on the South Side, in depth 41 feet 6 inches and height 15 feet". One of the messuages was leased to Reilly in 1882 and in 1885 the premises at the rear were leased to Booth "together with the entrance way or passage belonging thereto". Booth used this

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(*') 61 L.T.R. (N.S.) 294

entrance for other purposes besides a right-of-way. Plaintiff claimed that the defendant was entitled to a right-of-way only through the said entrance or gateway. It was held that the Defendant was entitled to use the entrance otherwise than as a right of way. Kekewich J. after referring to the description given of the said gateway, said there could be no question that it was the description of a piece of land, and that the height of 15 feet contained in the description was used to describe the limit of the area. He then went on to say:- "If there has been a conveyance of "the said gateway" with those dimensions before mentioned, and without the height of 15 feet, it might have and probably would have been that that conveyed the whole of the soil from as far as you can go downwards to as far as you can go upwards".

Laybourn v Gridley

In 1892 came the case of Laybourn v Gridley.(*1) In 1872 the owner of two adjoining properties conveyed one to the Plaintiff by a conveyance, which correctly marked out by reference to a ground plan the ground site of the property conveyed. A loft forming portion of the adjoining premises projected over this site. Shortly afterwards these -- -- adjoining premises were conveyed to the Defendant. No reference was made in either conveyance to the overhanging loft. In holding that the loft passed under the first conveyance to the Plaintiff North J. said:- "I see nothing to show that the conveyance of the site does not include everything above it up to the sky". He also stated in reference to the conveyance to the Plaintiff:- "That is a conveyance of apiece of ground coloured green, with the buildings upon it; and, in the absence of anything to limit its meaning, that means not only the area of ground coloured green, but everything above it and below it".

Lemmon v Webb

In Lemmon v Webb (1897),(*2) Kekewich J. in his judgment refers to branches of trees on one person's property overhanging the adjoining land of another as interfering with that other's

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(*1) 61 L.J.Chan.352
(*2) 70 L.T.R. (N.S.) 275

property; that is to say,with something between heaven and earth belonging to him".

Finchley Electric Light Co. v Finchley Urban Council

The case of Finchley Electric Light Co. v Finchley Urban Council (1902),(*1) again raised the question as to the meaning of the word "street" as used in Section 149 of The Public Health Act 1875. The Plaintiff Company carried wires across a road at Finchley at a height of 34 feet without permission of the Defendant council,within whose district the road was. The Council had the wires cut and threatened to so do again if they were replaced. Action was brought for an injunction to prevent cutting or interference with the wires. After holding that "street" in that Act means so much as is actually required for the purpose of a Road,Farewell J. held that the Plaintiff Company had no right to take their wires across that portion of the atmosphere that lay above the piece of land that belonged to the Defendant Council. In his judgment,given on appeal,(*2) Romer L.J. said:- "It was not by that section intended to vest in the urban authority what I may call the full rights in fee of a street,as if that street were owned by an ordinary owner in fee having the fullest rights both as to the soil below and as to the air above". Collins,M.R. and Romer,L.J. both considered that Farewell's judgment really amounted to this:- That because the fee simple in the soil of the road was vested in the persons from whom the urban council took over under The Public Health Act,therefore the council acquired the fee simple under that Act and so got the property in the air "usque ad coelum" and in the soil "Usque ad Inferos"

Evans & wife v Finn

In 1904 a case connected with firing bullets occurred in New South Wales,and is reported in 4 N.S.Wales State Reports 297, Evans and wife v Finn. A piece of land at Randwick was used by the Commonwealth military forces as a rifle range. On a number of occasions bullets from the range struck the Plaintiffs' house. It was held that the Crown was liable in damages to the Plaintiffs for the nuisance caused by these

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(*1) 71 L.J.Ch.454
(*2) 72 L.J.Chan.297

bullets. There was however no actual argument based on the question of trespass.

Clifton v Viscount Bury

In a similar case, Clifton v Viscount Bury,(*1) Hawkins, J. held that the firing of bullets into the Plaintiffs land by a Volunteer Corps was a trespass. Plaintiff also complained that his land was fired over by the Defendants when using the 1000 yards range, but in such case there was no evidence of contact, the trajectory being 75 feet above the ground. As to this Hawkins J. held that though there was no trespass in the strict technical sense of the term, he did look upon the firing as a grave menance which would afford the plaintiff a legal cause of action. The practice was not unattended with risk. It would cause not unreasonable alarm and render the occupation of that part of the farm less enjoyable than the plaintiff was entitled to have it. He therefore granted an injunction.

Gifford v Dent

Gifford v Dent (1926)(*2) was an action for a breach of covenant, with an alternative claim in trespass. Plaintiff was tenant of a basement and fore court, and the Defendant was tenant of an upper storey. The defendant erected a sign board in front of his premises which stood out from his wall 4 feet 8 inches. There was no danger or inconvenience to the Plaintiff. It was held a breach of covenant. Romer, J. as to the alternative claim said that if he were right in the conclusion he had come to, that the Plaintiffs were tenants of the fore court and accordingly tenants of the air space above that fore court usque ad coelum, it seemed to him that the projection was clearly a trespass upon the property of the plaintiffs.

Davies v Bennison

In 1927 a very interesting Tasmanian case was decided, Davies v Bennison.(*3) Defendant, while in his own yard, fired a bullet from a small-bore rifle at, and killed, the Plaintiff's cat, which was upon the roof of a shed in her yard. Plaintiff claimed damages for (inter alia) trespass by firing the bullet into her land. At the trial the Judge directed the jury that

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(*1) 4 T.L.R. 8.
(*2) W.N. 336.
(*3) 22 Tas.L.R. 52.

the Defendant has committed a trespass for which he was liable in damages to the Plaintiff. The jury nevertheless found for the Defendant. On application Sir Herbert Nicholls,C.J. ordered a new trial. In the course of his judgment he said:- "The question of trespass to land is much more difficult. If it was a trespass,then it was committed in circumstances and in a manner which aggravated it. It is curious that the law as to trespass by missiles which do not touch the ground never has been authoritively laid down in England nor (as far as I can discover) in the United States of America. I have to make an original decision. Trespass is actionable without pecuniary damage being proved,so that if this is a trespass it could be the subject of substantial damages,if a jury were to take a serious view of the circumstances of aggravation. -- Trespass is a breach of the negative duty,incumbent upon all, not to interfere directly and illegally with ownership. Ownership,whether permanent or temporary,is a right in rem, a right to use,deal with and enjoy the thing owned to an indefinite and almost unlimited extent. The ownership of land,part of the earth's surface,is necessarily different from that of moveables,and is generally described by the application of the maxim "Cujus est solum ejus est usque ad coelum". A man who walks from his roof on to that of his neighbour is clearly guilty of treapss. The neighbour's house is part of his freehold. But when the intrusion consists of sending something such as a balloon,a bird,a kite,or a missile over another's land, without touching it or anything built or growing upon it, -- important fundamental and subtle questions arise". He then referred to Lord Ellenborough's judgment in Pickering v Rudd and Lord Blackburn's comments thereon in Kenyon v Hart. He also quoted from Pollock's Law of Torts to which reference will be made later herein. He then continued,at page 56:- "It seems an absurdity to say that if I fire at another's animal on his land,hit it,kill it,and so leave the bullet in it,I have committed no trespass,and yet,if I miss the animal and so let the bullet fall into the ground,I have committed a trespass,

Such distinctions have no place in the science of the Common Law. If the hovering aeroplane is perfected the logical outcome of Lord Ellenborough's dictum would be that a man might hover as long as he pleased at a yard,or a foot,or an inch,above his neighbour's soil,and not be a trespasser,yet if he should touch it for one second he would be. A man has the undoubted right to build a high tower on his land,and the space above the land is exclusively his for that purpose. Then why not for any other legal purpose? It seems to me that the only real difficulty is in saying (what I need not say here) viz. how far the rights of a landowner "ad coelum" will have to be reduced to permit the free use of beneficial inventions,such as flying machines,&c. So far as the ability to use land,and the air above it,exists,mechanically speaking,to my mind any intrusion above land is a direct physical breach of the negative duty not to interfere with the owner's use of his land,and is in principle a trepass".

It will be noted that in the cases referred to,the Court has been dealing with trespasses in air space practically within the height of buildings upon the earth's surface,and the decisions show that there is no doubt as to the landowners proprietary right in the air space within such limit,by reason of which he may bring the action of trespass. But in addition to this it must be noted that in the course of their judgments extending over the last few centuries many learned judges have referred to the maxim "cuis est solum euis est usque ad coelum" as being the general rule of law.

Opinions of writers

Among modern writers there is an extreme divergence of opinion as to whether aerial flight constitutes a trespass.

Clark and Lindsell

In Clark and Lindsell on Torts (5th Edit.) at Page 348 we read:- "Whether the maxim "Cuis est solum ejus est usque ad coelum" is to be accepted literally as meaning that the ownership of land carries with it the possession of the column of air situate above it,or whether it is to be interpreted as meaning merely that a landowner is entitled to complain of any occupation by others of the space above him which materially interferes with his enjoyment of his land,seems doubtful".

The cases of Pickering v Rudd and Fay v Prentice are then contrasted with the cases of Ellis v Loftus Iron Co., Corbett v Hill,and others.

Salmond

Salmond in his work on Torts,in dealing with this question,says: "It is commonly said that the ownership and possession of land bring with them the ownership and possession of the column of space above the surface ad infinitum. Cujus est solum,ejus est usque ad coelum. This is doubtless true to this extent,that the owner of the land has the right to use for his own purposes,to the exclusion of all other persons,the space above it ad infinitum. He may build the Tower of Babel if he pleases,and may remove all things situated above the surface,even though they are the property of others,and though their presence there does him no harm and is no wrong for which he has any right of action against their owners. Thus,he may cut the overhanging branches of a tree growing in his neighbour's land,whether they do him harm or not; yet he has no right of action against the owner of the tree unless he can show actual damage . So he may cut and remove a telegraph or other electric wire stretched through the air above his land,at whatever height it may be, and whether he can show that he suffers any harm or -- -- inconvenience from it or not. It does not follow from this, however,that an entry above the surface is in itself an actionable trespass: nor is there any sufficient authority that this is so. Such an extension of the rights of a landowner would be an unreasonable restriction of the right of the public to the use of the atmospheric space above the earth's surface. It would make it an actionable wrong to fly a kite,or send a message by a carrier pigeon,or ascend in an aeroplane,or fire artillery,even in cases where no actual or probable damage,danger or inconvenience could be proved by the subjacent landowners. The state of the authorities is such that it is impossible to say with any confidence what the law on this point really is. It is submitted,however,that there can be no trespass without some

physical contact with the land (including,of course,buildings, trees,and other things attached to the soil) and that a mere entry into the air space above the land is not an actionable wrong unless it causes some harm,danger,or inconvenience to the occupier of the surface. When any such harm,danger,or inconvenience does exist,there is a cause of action in the nature of a nuisance".

Jenks

In Jenks "Digest of English Civil Law" (2nd Edit.Vol.1 page 382) we read: "An action of trespass lies for -- interference with the possession of the sub-soil or minerals beneath the surface of land,or of the air space incumbent thereon;but this right,for the purpose of suing in trespass, is limited to so much of the air space above as the plaintiff can show to have been in his effective control".

Halsbury

In Volume 3 Sect.216 of Halsbury it is laid down that where the ownership of the surface and minerals has not been severed,the surface boundary probably carries with it the right to the column of air over the land up to the sky and certainly the soil to the centre of the earth,on the principle Cuis est solum eius est usque ad coelum et ad inferos.

In Volume 24 P.156 Note (f) referring to "land" the writer of Halsbury says:- "The extent of its legal signification has usually been expressed in the maxim "cuius est solum eius est usque ad coelum": but the strict right of property does not extend skyward without limit so as to entitle the owner to sue in trespass (Pickering v Rudd) and the advent of airships has shown that this would be impracticable. The extent of the right of ownership seems to be limited by the power of control that is,ownership cannot extend beyond possible possession; and probably the ownership is limited to the air space required for the erection of buildings".

McNair

Dr McNair has advanced some interesting arguments on this subject. He considers the maxim "cuius est solum,etc..." has in itself no authority in English law,and that as regards the upward extent signified it has been misunderstood and misapplie Space itself cannot be owned,though minerals below the surface

of the earth or buildings above it can be. The maxim really means that the owner of a portion of the surface of the earth also owns everything below and anything above that portion which is capable of being reduced into private ownership. He owns minerals within known workable distance of the surface though it is doubtful whether he owns those say 10 miles below the surface: but these latter he has the exclusive right of acquiring by winning them if he knowshow to. He has likewise the exclusive right of extending his property above the -- surface by erecting buildings &c. thereon and can prevent his neighbours from doing anything which interferes with this right. Dr McNair suggests that the only acceptable theory is that prima facie a surface-owner has ownership of the fixed contents of the air space and the exclusive right of filling the air space with contents. He feels that ownership of space is not possible and therefore a surface owner cannot be considered as owning automatically the air space just above his portion of the earth's surface,although it is capable of being filled with fixed contents. In other words he can only own whatever erection or thing he fixes to the surface.(*')

Pollock

Pollock in his "Law of Torts" in dealing with the subject says:- "It has been doubted whether it is a trespass to pass over land without touching the soil,as one may in a balloon,or to cause a material object,as shot fired from a gun,to pass over it. Lord Ellenborough thought it was not in itself a trespass "to interfere with the column of air superincumbent on the close," and that the remedy would be by action on the case for any actual damage; though he had no difficulty in holding that man is a trespasser who fires a gun on his own land so that the shot fall on his neighbour's land. Fifty years later Lord Blackburn inclined to think differently,and his opinion seems the better. Clearly there can be a wrongful entry on land below the surface,as by mining,and in fact this kind of trespass is rather pominent in our modern books. It does not seem possible on the principles of the common law to assign any reason why an entry above the surface

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(*') McNair The Law of the Air,p.33-35

should not also be a trespass,unless indeed it can be said that the scope of possible trespass is limited by that of possible effective possession,which might be the most reasonable rule. Clearly it would be a trespass to sail over another man's land in a balloon (much more in a controllable air-craft) at a level within the height of ordinary buildings and it might be a nuisance to keep a balloon hovering over the land even at a greater height. As regards shooting,it would be - strange if we could object to shots being fired point-blank across our land only in the event of actual injury being caused,and the passage of the foreign body in the air above our soil being thus a mere incident in a distinct trespass to person or property. But the projectiles of modern artillery,when fired for extreme range,attain in the course of their trajectory an altitude exceeding that of Mount Blanc or even Elbruz. It may remain in doubt whether the passage of a projectile at such a height could in itself be a trespass. Many continental authors,but by no means all,uphold a positive right to free passage in the air (subject to reasonable regulation) as the base of any international convention on the subject. Whether it be desirable or not to invent such a right,it will not be found ready made in the common law; and it is certainly not part of the law of nations,for all or most European -- Governments have made rules involving the denial of it even in time of peace".

Montenot

Dr Montenot considers that it is indisputable that the rule of jurisprudence gives the proprietor of the ground a veritable right of property over the aerial space above his land.

Both Jenks and the writer of Halsbury in the second passage above quoted make Lord Ellenborough's dicta in Pickering v Rudd the basis of their doctrines of a right of ownership in air space,limited in height. In the first place,it should be noted that this case is robbed of -- considerable weight by the divergence in the reports,which

Cases and opinions discussed

has already been referred to,so that it is doubtful whether or not Lord Ellenborough did express a decided opinion on the question as to whether an aeronaut is liable in trespass for flying over another person's land. Thus,in the case of Wells v Ody,(*1) Baron Parke,commenting on Pickering v Rudd,said that Lord Ellenborough thought it to be a very nice question -- whether trespass was maintainable. At any rate, Lord -- Ellenborough's words relating to aeronauts were merely obiter. And since that time,not only has Lord Blackburn directly -- queried the correctness of Lord Ellenborough's opinion, as contained in Campbell's report,but eminent judges as noted in the foregoing cases have expressed the opinion that the maxim "cuius est solum eius est usque ad coelum" correctly expresses the doctrine of the common law. Moreover, they have done so with their eyes open to the realisation of the manner in which this doctrine affects aviators. For Lord Ellenborough's remarks,calling attention to this,were made over a century ago

The view expressed by the writer of Halsbury and by Jenks limits ownership to a stratum of the air-space,that is to say it is in effect a zone doctrine in private law. The writer of Halsbury determines the height of this air zone by the air space required for the erection of buildings,and Jenks by the extent of air space over which the landowner exercises effective control. Dr McNair allows a more limited zone still,for he limits ownership to the actual fixed contents of the air space. Salmond's contention is similar in effect. For,as we have seen,he holds that there can be no trespass without some physical contact with the land itself or -- buildings,trees,or other things attached to the soil.

As Dr Hazeltine has pointed out,(*2) the adoption of either McNair's or Salmond's view may possibly lead further in the future than is now apparent. Suppose the owner of a high building in a city were to attach a heavy cable to the top of the building and send up a captive balloon some 2 or 3 miles for purposes of scientific investigation. This is something -- --

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(*1) 1M & W 458.
(*2) Law of the Air p.71

attached to the soil,even though the height be very great. Under Salmond's doctrine,or McNair's,would trespass lie if an aircraft ran into the cable or struck the captive balloon itself? The remarks on hovering aeroplanes in the judgment in Davies v Bennison draw attention to other difficulties which would result from the acceptance of either Salmond's or McNair's view. For,if either of these views were accepted, an aviator who flew about a house,close to the ground but without touching the house or the land,would not be a trespasser.

It should be noted that under the English system of land law,for the purposes of ownership,land may be divided -- -- horizontally as well as vertically,and either below or above the ground. Thus one person may own a stratum of minerals, another the space occupied by a tunnel,another the surface of the land,and yet others may own different storeys of a building on the land. A zone theory is therefore quite in keeping with the idea of such horizontal hereditaments. But the general presumption of law has been repeatedly expressed to be a single ownership embracing not only the soil but extending "usque ad coelum et ad inferos".

There is a marked contrast between the definite extent of this single ownership and the varying "zones" of ownership which have been mentioned. There is no agreement among those who do not accept the maxim "cuius est solum,&c." in its full effect,as to the limitations which they consider should be read into the principle stated in that maxim. On the one hand,there is the difficulty of deciding what constitutes effective possession,or what determines the extent of effective control. On the other hand,there is the variation in the height of the zone of ownership in consequence of variations in the heights of buildings. If the upward extent of ownership is determined by the height of the buildings or other erections on the land,not only will there be great differences between neighbouring land-owners in the extent of their ownership,but any single land-owner with buildings of

various heights will have no one fixed extent of ownership in the air space over his land. Take the case of landowners having in their lands the fullest estate recognised by our law, i.e. an estate in fee simple. Each has the same estate as the others in their respective pieces of land. Any limitation of their ownership of the air space to the respective heights of the buildings on their lands immediately causes considerable variation in the extent of their actual estates. The same result would follow from an attempt to limit ownership in air space by the test of effective control. In the eyes of the law, there is, as a general principle, no such differentiation between owners in fee simple: all have equal rights both in air space and in sub-soil, and their ownership does not vary with the extent to which they exercise the rights arising therefrom.

The basis of our land laws is that ownership springs in the first place from the Crown. The usual form of grant from the Crown contains no stipulations as to the height above the surface to which the landowner's ownership is to extend and none as to the extent of his ownership in the sub-soil, save that the property in certain minerals is generally reserved to the Crown. This implies that the grantee becomes owner of the land in the ordinary legal sense of that word i.e. usque ad coelum et ad inferos, save for the excepted minerals. That this ownership extends ad inferos seems to be generally accepted. Yet if the test of effective control be applied, from a practical view-point man has probably a less extensive control below the earth's surface than he has in the airspace above it. Any infringement of the imaginary boundary line of a man's land below the surface is an actionable trespass. This has been repeatedly shown in mining cases, and opinion on this point seems quite settled. It is submitted that an infringement of the imaginary boundary line of a man's land above the surface is likewise under the common law, an actionable trespass.

If the land-owner has only a limited zone of ownership in the airspace above his land, the ownership of the air space above that zone has to be decided. If that upper airspace is

not included in a grant from the Crown,presumably it remains in the ownership of the state. But as already pointed out a grant from the Crown seems to give the grantee all the Crown has usque ad coelum et ad inferos,unless otherwise stated. The general principles of the common law do not provide for persons acquiring the "right" to use the air space over land belonging to another person otherwise than through that landowner. It is accepted that the landowner has the exclusive right to erect buildings,&c.on his land,and to prevent other persons doing anything which interferes with that right. It is submitted that in general he has the exclusive right to use the air space above his land for whatever purposes he thinks fit besides building on it; that this right rests on ownership of that air space; and that the fact that the landowner is not exercising his rights in air space does not give other persons the right to use such air space.

It seems the better opinion that on the general principles of the common law the landowners rights are unlimited both above and below the surface. The principle embodied in the maxim "cuis est solum,&c." has become an accepted part of our legal thought,and though modern developments require certain modifications of that principle,that of itself does not alter the principle. Other countries which have accepted the law as stated in the maxim have given it its fullest application. As a result we find Germany for example has altered her civil code in view of the development of aviation so that while the landowner,as before,is recognised as owning the entire air space above his land,he cannot object to any act in such air space unless he has an interest in objecting. The English legislation dealing with air navigation contains a special provision that no action shall lie in respect of trespass by reason only of the flight of aircraft over any property so long as certain conditions therein mentioned are observed. This special provision applies also on the same conditions to actions for nuisance.

Common law in the Commonwealth

There yet remains the question whether these principles of the common law of the several states which are not altered by the Commonwealth legislation will continue to apply now that air navigation - so far as concerns four States - is controlled by Commonwealth legislation. In several Federal Acts, -- provision has been made as to the extent to which the common law on the matter dealt with by those Acts shall apply. In A.Inglis Clark's Australian Constitutional Law,at p.192,it is contended that,apart from these enactments,"there is no -- Federal common law except in relation to the executive powers of the Crown: that there cannot be any Federal common law in Australia: and that the Federal Courts of the Commonwealth will not possess any jurisdiction under the common law."

In the King v Kidman (1915) (*') the question as to whether there is any common law in Australia independent of the common law which forms part of the law of the several states was dealt with in two of the judgments. Although in that case the discussion was concerned with the common law rights and prerogatives of the Crown in relation to crimes,the decisions given indicate the correct solution of the matter now under discussion.

At page 435,Sir Samuel Griffiths C.J. says:- "This inquiry raises a large and important question,namely,whether there is any common law in Australia independent of the common law which forms part of the law of the several States..... The -- principles applicable to the subject seem to be free from -- doubt. It is clear law that in the case of British -- Colonies acquired by Settlement the colonists carry their law with them so far as it is applicable to the altered conditions. ..... In so far as any part of this law was afterwards repealed in any Colony,it,no doubt,ceased to have effect in that Colony,but in all other respects it continued as before. When in 1901 the Australian Commonwealth was formed,this law continued to be the law applicable to the rights and -- -- prerogatives of the Sovereign as head of the States as before, subject to any such local repeal. But,so far as regards the

(*') 20 C.L.R. 425

Sovereign as head of the Commonwealth, the current which had been temporarily diverted into six parallel streams coalesced, and in that capacity he succeeded as head of the Commonwealth to the rights which he had had as head of the Colonies."

After rejecting the argument that an offence at common law was not a Commonwealth offence Isaacs J. at page 445, says:- "The common law of England was brought to Australia by the first settlers, and remains, as the heritage of all who dwell upon the soil of this continent, in full force and operation, except so far as it has in any portion of the law been modified by a competent Legislature". Later in his judgment he quoted with approval the following portion of the judgment in the Western Union Telegraph Co. Case (United States of America):- "There is no body of federal common law separate and distinct from the common law existing in the several States in the sense that there is a body of Statute law enacted by Congress separate and distinct from the body of Statute law enacted by the several States. But it is an entirely different thing to hold that there is no common law in force generally throughout the United States; and that the countless multitude of inter-State commercial transactions are subject to no rules and burdened by no restrictions other than those expressed in the Statutes of Congress." He then stated that mutatis mutandis, those words are applicable to Australia.

In the same way the principle of the common law stated in the maxim "cuius est solum euis est usque ad coelum et ad inferos" is part of the law of England which was brought to Australia by the colonists, and became part of the law of each of the six States administered by the Sovereign as the head of each State. As pointed out by Sir S. Griffiths above, it has not thereby become six separate laws, but is part of an identical law applicable to six separate political entities. And this same principle is part of the law that is recognised by the Sovereign in his capacity as head of the Commonwealth, unless repealed by the Commonwealth so far as concerns any matter within its legislative powers. It therefore follows

that,as no State has repealed the common law principle -- -- expressed in the above mentioned maxim,aviators will technically be liable in trespass for flying over other people's property unless the Commonwealth Parliament,by virtue of the power referred,removes this liability.

Effect of Commonwealth legislation

Such action by the Commonwealth would at present affect only the four States which have referred to the Commonwealth power to legislate re air navigation. But the present Commonwealth legislation on the subject leaves the common law principle unaffected. Part II of the Air Navigation Regulations dealing with Conditions of Flying outlines,in Division 1,certain general requirements mainly relating to registration,licensing of personnel,&c.,and,in Division II, certain requirements designed for safety,but contains nothing dealing with the matter in question. In the present state of the law therefore the Commonwealth has not the power to carry out the undertaking contained in Article 2 of the International Convention to accord freedom of innocent passage above its territory to the aircraft of the other States. From both the national and international view point therefore it seems advisable for the Commonwealth to adopt legislation to protect aviators in a reasonable measure from actions in respect of trespass by reason of flying over other people's land.

It may be considered that legislation on the matter is unnecessary; that no one would in these days attempt to enforce their proprietary rights "usque ad coelum". But it appears more desirable in the interests of aviation that the position should be made clear by legislation without delay,to save aviators from the possible annoyance of proceedings for trespass, and at the same time to protect landowners from attempts on the part of aviators to use the air space near the surface of the earth in a manner which interferes with a landowners reasonable enjoyment of his property. For there are always some -- -- opponents of progress who on the slightest provocation would take action to enforce their rights,and likewise there are

aviators who would take unreasonable liberties if allowed to fly anywhere they pleased. It is therefore desirable that legislation should preserve to land holders their right to object to such low flying as could fairly be regarded as interfering with the reasonable use and enjoyment of their property while depriving them of power to obstruct flying at a reasonable height.

It must be remembered, that in spite of the advancement made in the last two decades, aviation is only in its infancy in Australia. Furthermore the number of aircraft in Australia is a negligable quanity when contrasted with the number in such countries as Great Britain, Germany, and U.S.A. In framing any laws on the subject it is necessary to look forward to a time, now rapidly approaching, when there will be numerous aircraft in daily use.

Legislation of other countries

Germany

Germany to-day has probably a greater number of commercial and private aircraft in use than any other country. As we have seen, under the German civil code the landowner owns the entire air space above his land but he can only object to any act in such air space if he has an interest in objecting. Full proprietary right in the entire air space is thus admitted, but its exercise is limited in the interests of aerial navigation to cases where the land owner actually suffers some legal detriment by the passage of aircraft above his land. Thus the mere passage of aircraft high up is not sufficient alone to afford the landowner any ground of action; something more must happen e.g. the dropping of something from such aircraft on to the land.

Switzerland

A similar rule has been adopted in the civil code of Switzerland.

Great Britain

To deal with this liability arising from the strict interpretation of the common law, the English Air Navigation Act 1920 contains special provisions. The first part of Sec. 9 (1) of that Act provides that no action shall lie in respect of trespass or in respect of nuisance, by reason only of the flight of aircraft over any property at a height above the ground, which, having regard to wind, weather, and all the

circumstances of the case is reasonable,or the ordinary -- incidents of such flight,so long as the provisions of this Act and any Order made thereunder and of the Convention are duly complied with. It is thus left to the Courts to decide the extent of a landowner's proprietary rights in air space in the event of him objecting to the flight of aircraft above his land. This provision however does not apply to aircraft belonging to or exclusively employed in the service of His Majesty unless by Order in Council it is made applicable to any such aircraft. As rights,powers,or privileges of any general or local lighthouse authority are not to be prejudiced or affected by this act,aviators who fly over property of lighthouse authorities will not be protected by this Section if they have thereby infringed laws of any such authorities which apply to such property. (See Sect.18)

It is submitted that the general principle involved in the interpretation of this portion of this Section is similar to that laid down in R. v Pratt (1855).(x') Pratt was in the daytime on a public road,carrying a gun,and accompanied by a dog. The land on both sides of the road was the property of one Geo Bowyer. On one side of the highway,which was a common public road,the land was let by Bowyer to a yearly tenant,subject to Bowyer's right to enter and kill game. Pratt waved his hand to the dog which entered the cover: a pheasant flew across the road and Pratt being on the road fired at it but missed it. He was convicted under the Game Act 1831 of committing a trespass by being in the day time on land in the occupation of Bowyer in search of game. On appeal the Court held that the road was land in the occupation of Bowyer subject to the right of way in the public: and that there was evidence that Pratt was not on the road in exercise of the right of way,but for another purpose,namely in search of game,and so was a trespasser. Lord Campbell C.J., referring to Pratt being on the high way,said:- "He was beyond all controversy on land,the soil and freehold of which was in the owner of the adjoining land,that is Mr Bowyer.

(x') 99 Revised Reports 792

It is true the public had a right of way there: but subject to that right,the soil and every right incident to the ownership of the soil was in Mr Bowyer. The road must therefore be considered as Mr Bowyer's land. Then Pratt,being on that land,was undoubtedly a trespasser if he went there,not in exercise of the right of way but for the purpose of searching game and that only". Wightman J. said:- "Though the public have a right to pass and repass on land which is a highway they have no right to use the land for any other purpose than as a highway; and the appellant being on such land in pursuit of game was,prima facie,a trespasser". Erle J. said:- "But I take it to be clear law that if in fact a man be on land where the public have a right to pass and repass not for the purpose of passing and repassing,but for other and different purposes,he is in law a trespasser,like the cattle in -- Dovaston v Payne". Crompton J. said:- "I take it to be clear law that if a man use the land over which there is a right of way for any purpose lawful or unlawful,other than that of passing and repassing,he is a tresapsser".

In Harrison v Duke of Rutland and others (1893)(*1) Lord Esher in dealing with the rights of the public in a highway, said:- "The public may pass and repass along highways but certain things are done upon them which have come to be recognised as things done by the public in the reasonable and usual mode of user of the highway and if a person does no more than that then he is not a trespasser". Lopes L.J. in his judgment said:- "The conclusion which I draw from the authorities is that if a person uses the soil of the highway for any purpose other than that in respect of which the -- dedication was made and the easement acquired,he is a -- trespasser. The easement acquired by the public is a right to pass and repass at their pleasure for the purpose of -- legitmate travel and the use of the soil for any other purpose, whether lawful or unlawful,is an infringement of the rights of the owner of the soil,who has,subject to this easement, -- precisely the same estate in the soil as he had previously to

(*1) 62 L.J. 117

any easement being acquired by the public."

Now in the case of aircraft, this Section 9 (1) of the English Statute in effect allows aviators to fly at a reasonable height over other people's land provided they comply with the requirements of that Section. As Lord Esher pointed out in the case of English highways, certain things are done upon them which have come to be recognised as things done by the public in the reasonable and usual mode of user of the highway and if a person does no more than that, he is not a trespasser. In like manner this Section recognises that, in flying, certain things are done which are recognised as reasonable and usual, and it provides that such ordinary incidents of flight are not to render the aviator liable in trespass or for nuisance. But should aviators fly at a height which is not reasonable, having regard to wind, weather, and all the circumstances of the case, or do things in the course of flight which cannot be considered ordinary incidents of flight, or should they fail to comply with the provisions of the Act and of the International Convention, then the provisions of Section 9 cease to apply and the -- principles governing the liability of aviators in trespass or for nuisance remain as though this Section had never been enacted. For the landowners rights are only suspended -- conditionally and the use by aviators of the air space above another person's land for any other purpose or in any other manner than that allowed by the Section is technically an infringement of the rights of the owner of the soil.

It will be noted that even though aviators comply with the conditions relating to flight which are specially mentioned by this Section, they will only be granted the immunity stated in the Section so long as the provisions of the Act and any Order made thereunder and of the International Convention are duly complied with. Now the provisions of the Act and the Order made thereunder and of the International Convention impose on aviators a great number of duties, varying from observing certain heights when flying over towns, and refraining from trick or exhibition flying in certain cases, to carrying in the aircraft

certain documents, e.g. journey log book, certificate of registration, certificate of airworthiness, certificates of competency and licences of the crew. Many of these duties have little or no connection with any question of trespass or nuisance. Yet on the true construction of the Section it seems that failure to observe any of these requirements will deprive an aviator of the immunity he might otherwise enjoy under that Section. For the person claiming the benefit of a statutory exemption from a liability which would otherwise exist, must prove strict compliance with all the conditions of that exemption.

The English Air Navigation Act 1920 contains a further general clause which indirectly affects this question of altitude during flight. Section 10 (1) of that Act provides that where an aircraft is flown in such a manner as to be the cause of unnecessary danger to any person or property on land or water, the pilot or the person in charge of the aircraft, and also the owner thereof, unless he proves to the satisfaction of the court that the aircraft was so flown without his actual fault or privity, shall be liable on summary conviction to a fine not exceeding two hundred pounds, or to imprisonment with or without hard labour for a term not exceeding six months, or to both such imprisonment and fine. For the purposes of that section, the expression "owner" in relation to an aircraft includes any person by whom the aircraft is hired at the time of the offence.

In the English Air Navigation (Consolidation) Order issued in pursuance of the Air Navigation Act 1920, there is further provision as to the height at which aircraft must fly, made for ensuring the safety of persons and property on land. Article 9 (1) prohibits aircraft flying over any city or town within Great Britain and Northern Ireland except at such altitude as will enable the aircraft to land outside the city or town should the means of propulsion fail through mechanical breakdown or other cause. But it provides that this prohibition shall not apply to any area comprised within a

circle with a radius of one mile from the centre of a licensed aerodrome or of a Royal Air Force aerodrome or of an aerodrome under the control of the Secretary of State. Under Article 9 (2) (c) an aircraft in or over Great Britain and Northern Ireland is not to be flown in such circumstances as, by reason of low altitude or proximity to persons or dwellings or for any other reason, to cause unnecessary danger to any person or property on land or water.

The first paragraph of this article is confined to cases of failure of the means of propulsion e.g. through engine trouble and similar things. Note that here again no minimum stated height applicable everywhere has been fixed, but the onus is cast upon the aviator of maintaining a sufficient height, which of course will vary with the size of each town. While it is possible to guess the real intention of this paragraph with the proviso, it is submitted that the present wording leaves the position very obscure in the event of an aircraft falling in a town. As the paragraph and proviso now stand, if an aircraft flies over any town area outside a radius of one mile from the centre of one of the specified aerodromes, and comes down, say through engine failure, in that town, but more than a mile from the centre of one of the specified aerodromes that would be a breach of the regulations. But if the engine failure, or similar mishap contemplated by the paragraph, occurs while the aircraft is flying over any town area outside a radius of a mile from one of the specified aerodromes but the aircraft comes down in the town within that mile radius, does that constitute a breach of the regulations? Again if the trouble occurs while the aircraft is flying over an area within a radius of a mile from the centre of a specified aerodrome, and the aircraft lands outside that mile radius but in the town, does that constitute a breach of the regulations? Presumably what is really intended is that while flying over a town area outside a radius of a mile from one of the specified aerodromes, an aircraft must fly sufficiently high to be able to land outside the town in the event of engine failure or similar mishap: and

while flying over a town within a mile from the centre of one of the specified aerodromes an aircraft must maintain -- -- sufficient height to enable it to land at that aerodrome in the event of any engine failure or similar mishap. No matter where the trouble occurs,it seems to be intended that the aircraft shall not fall in the town,unless on an aerodrome.

Commonwealth Regulations

The only provisions in the Commonwealth A.N.Regulations dealing generally with the matter of altitude in flying are Regulation 10 which is the same as Article 9 (1) of the -- English Order and Regulation 11 (c) which provides that no person in any aircraft shall engage in any flying which by reason of low altitude or proximity to persons or buildings is dangerous to public safety.(*1) It is submitted that these regulations are not sufficient to release aviators by -- -- implication from their common law liability in trespass for flying above another person's land when they fly at a height which does not infringe these provisions.

Although the English legislation has dealt with this matter as above outlined,it still leaves some difficulties. Placing upon the Courts the decision as to what is "reasonable" in the matter of height follows the principle frequently adopted in our laws relating to torts,particularly negligence, where the Courts have to decide upon the reasonableness of mens actions and whether they should have forseen that certain happenings might reasonably result from those actions. It may obviously be extremely difficult,particularly in the case of a very small landowner,to prove a trespass of an aircraft passing overhead unless it flies extremely low. For at a height of a hundred or more feet,an aircraft which to an observer on earth appears in a direct perpendicular line overhead,may easily be a considerable distance from such perpendicular. This difficulty of proofs may cause landowners to suffer greater invasion of their air-space than is -- -- reasonable and lead to some aviators taking unwarranted risks as a result of being unchecked. Probably the great majority of people will be little concerned about trespass,so long as

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(*1) Cf. Eng.Consol.Order Article 9 (2) (c).

aviators do not take too great liberties. It may therefore be considered that aviators should be freed from all liability for trespass, and that landowners would be sufficiently -- -- protected by making provision in their interests with -- reference to any damage caused by aircraft to them and their property. But while it is undoubtedly necessary to make provision with relation to such damage, it is equally, if not more, necessary to regulate air navigation in such manner that the possibility of such damage being caused is reduced to a minimum.

Suggestions for legislation

Legislation fixing as a minimum altitude for flying a reasonable height above the land or the buildings thereon suggests itself. Not only would it to a large extent relieve landowners from the difficulties of preventing unreasonable trespass or nuisance but it would also afford a reasonable amount of protection from damage which might result from the various mishaps which affect aircraft. And provided the aviator's sphere of flight is not thereby unnecessarily restricted, such legislation would be for his benefit also, and likewise for the benefit of his passengers, if he carries any. For should any mechanical trouble occur, or the machine stall, side slip or dive, or strike a bad air-pocket, when at a height of a thousand or more feet, the aviator has a bigger available area within which to find a landing place or more space in which to right his machine, than if he had been flying close to the earth. In a recent case in Melbourne (*) against an aviator who flew low over a football ground at South Melbourne during the progress of a match evidence was given by an expert that having regard to the fact that there was a large crowd at the ground 400 feet was the minimum altitude at which an aeroplane might safely fly over that ground, if the possibility of engine trouble were precluded, and 1000 feet if there was a probability of engine trouble. If the machine got out of control, 400 feet would be necessary to regain control.

At the present stage of development, one great reason for

(*) See Argus of 20 July 1932

desiring to exclude aircraft from the lower stratum of air space is their excessive noise while in flight - for the noise of a single aircraft flying at a low altitude over a city is usually audible far above that of the ordinary city traffic. But technical improvements will undoubtedly solve this problem: indeed at the present day in the larger aircraft the noise of the engine exhaust can be very materially lessened, though only at the expense of loss of power. It seems therefore that suitable provision for flying at an altitude affording --- reasonable safety for both the flyer and the person on earth and for making good damage caused by aircraft, will indirectly be sufficient from the landowners point of view, in the great majority of cases, for dealing with the matter of trespass and nuisance. As to what that height should be is a matter for consideration by experienced aviators. The danger to persons and property in the country districts is far less than to those in the townsand cities, and apart from ensuring greater safety for the aviator himself there seems to be no special reason for enforcing a great height in flights over country districts. But at the same time there seems no good reason why aviators should indulge in very low flying even in these districts.

Legislation similar to that in force in England with reference to trespass and nuisance may be satisfactory for Australia. It may be found advisable to make the additional provision that aviators shall fly at an altitude of not less than say 750 to 1000 feet above the land, making this height the minimum which "having regard to wind, weather and all the circumstances of the case is reasonable". Of course this minimum will probably rise considerably in the case of many towns, under the regulations already in force (Aust.A.N.R.10 (1) quoted above). This suggestion is based upon expert opinion that in ordinary circumstances a height of 750 feet to 1000 feet above the land is the mimimum which affords an aviator a reasonable opportunity of finding and reaching a suitable landing place, in the event of mechanical or other

troubles necessitating an immediate landing,or of righting his machine should it stall,side-slip,or dive. As machines are developed,it will probably be safe to reduce this minimum, though that is a matter for experts to decide. If a minimum height is fixed there arises immediately the difficulty of providing for aircraft landing and taking off. If the aerodrome is small,during each of these manoeuvres aircraft must come very close to the land adjoining the aerodrome and buildings (if any) on such land. One of the tests prescribed by the English Airworthiness Handbook for a public transport machine for passengers is that it must clear an obstacle 20 metres above the level of the aerodrome of departure without covering more than 500 metres in a horizontal projection. For other classes of machines the requirement is even less. Unless the aerodrome is considerably longer than this distance, an aircraft which merely complies with these requirements would pass very close to any buildings on land adjoining the aerodrome. In many of such instances it is very doubtful whether the English laws would protect the aviator; and it might be necessary for him to make arrangements with the adjoining landowners to meet the position. For the mere fact that the machine is unable within the distance mentioned, to gain a greater height than that prescribed cannot of itself make that height above another person's land a reasonable one, within the meaning of the English act,so as to free the aviator from liability for trespass or nuisance. It is therefore desirable that in licensing an aerodrome,the authorities responsible should insist on an area large enough to enable aviators,on taking off,to attain a fair altitude before passing over other people's land,and more particularly over buildings on that land.

To overcome this difficulty which would arise as a result of requiring a minimum altitude to be observed while flying, provision could be made releasing the aviator from this requirement while taking off from,and descending to,any licensed aerodrome,provided he carries out such manoeuvres

within the shortest reasonable distance. Technical improvements will undoubtedly make the position easier by enabling aircraft to rise from and alight on a much smaller area than they can now and to attain a reasonable height above the land within a much smaller space than is at present possible.

To prescribe one minimum altitude suitable for every town and every country district in the land seems practically impossible,and might exclude aviators from much air-space which landowners cannot utilise in any ordinary way. Indeed upon mans requirements in the way of height above the earth depends the practicability of the suggestion next submitted. It is based upon the idea that the state should resume from all landowners the air space above their lands save a lower stratum of a certain height required for man's proper and full enjoyment of his land,and that this upper stratum should be treated as an aerial highway. The great difficulty again is to fix the height of the lower stratum of air space to give landowners the full benefit of their land and at the same time not to exclude aviators unreasonably from air space the use of which for ordinary aviation purposes does not adversely affect landowners.

It is usual for each city and town to regulate by its Building Regulations (inter alia) the height to which buildings may be raised. In the Commonwealth the maximum height permitted probably does not exceed 200 feet,if that. This is small when compared with the sky-scrapers of many American cities where the concentration in city business areas has forced buildings upwards to avoid spreading the cities over greater land areas. As a result buildings over 1000 feet in height are quite common and the most recent building of this style exceeds 1600 feet in height. However in Australia it is highly improbable that any such building height will be allowed,at any rate within the near future -,and by that time the development of aircraft may be such as not to require flight at so great a height above --

buildings as is now regarded as reasonable.

It is suggested that for Australia the lower air-stratum to be retained in the possession of all landowners might be fixed at, say 750 feet to 1000 feet as a basis for the whole Commonwealth. Once this height is attained aviators would leave private property and fly in what might be termed an aerial highway where they would be free from any possible action for trespass. As an aviator flying at 1000 feet over some of the larger cities would not always be able to land outside the city in the event of mechanical or other trouble, it would still be necessary to retain Article 10 of the Aust. A.N. Regs. The establishment of an aerial highway on the lines submitted still leaves the difficulty of providing for landing and taking off, for which provision could be made similar to that outlined under the earlier proposal for defining a reasonable minimum altitude for flight. This difficulty will be greatly reduced by providing aerodromes of reasonable size and by technical progress enabling machines to rise and alight within a smaller space than at present.

It is submitted that both these suggestions do away to a great extent with the difficulty of applying the provisions in the English statute relating to trespass and nuisance, and by making both the landowner's and the aviator's respective positions more definite, save landowners from having to submit, on account of difficulties of proof, to unreasonable abuses of their rights by aviators who engage in irresponsible flying. They also ensure a greater measure of protection from damage not only for the landowner but also for the aviator. For while admittedly it would be most difficult to prove a slight infringement of either suggested regulation, a serious invasion of the air-stratum reserved to landowners could be proved more easily. The situation might be met by throwing upon the aviator the onus of proving in any action against him for infringing the landowners rights, that over such landowners property he had not flown lower than the prescribed minimum height.

Should these regulations be considered too exacting on aviators to be applied generally,an exception might be made in the case of aircraft flying along established air-routes where the minimum altitude suggested might be decreased. But it should be noted that Col.Lindbergh as a result of trial flights made recently in U.S.A. considers that flying at a height of from 10,000 to 20,000 feet ensures the maximum of efficiency from aeroplanes,particularly on commercial routes.

Position in other countries

Undoubtedly it is very debatable which is the better course,to fix a minimum height for flying,along the lines indicated,or to allow the height for flying to be -- determined by and vary according to what is reasonable in each particular case. Legislation along both these lines is found. Under the German Civil Code a landowner can only object to flight over his land,if he can prove he has actually suffered some detriment. Switzerland has adopted a similar rule. In France no mimimum height has been fixed and although courts there have awarded damages for low flying,they have declined to prescribe any fixed minimum height to be observed by aviators when flying. The position in England has already been stated. On the other hand,we find that in the United States of America,the Federial Air Traffic Rules fix 500 feet as the minimum height for flight in some circumstances. The same height has been adopted by the State of Massachusetts,for similar circumstances. As a result there have been cases in which American Courts have restrained by injuction flying at less than 500 feet but have declined to restrain flying above that height,though in one instance a temporary injunction has been granted to restrain flight at less than 2000 feet.(*1)

Freedom of innocent passage

So far we have been dealing with the modification of private landowners' rights to allow freedom of flight. Our next concern is with the landing of aircraft. By Article 2 of the International Convention each contracting State -- undertakes to accord freedom of innocent passage above its

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(*1) Johnson v Curtis Northwest Airplane Co.(1923 Minnesota)

territory to the aircraft of the other contracting States, on the conditions therein stated. In accordance with this undertaking, Article 15 gives every aircraft of a contracting State the right to cross the air space of another State without landing. In this case it must follow the route fixed by the State over which the flight takes place. But, for reasons of general security it will be obliged to land if ordered to do so by means of the signals provided in Annex D. Further, every aircraft passing from one State into another must, if the regulations of the latter State require it, land in one of the aerodromes fixed by the latter. All the contracting States receive notification of these -- aerodromes. It is of course the right of each State to decide for itself whether or not aircraft from other States must land in its territory if they exercise their right to fly over it. For reasons connected with defence, a State may find it expedient to order them to do so. In most States at the present time aircraft on arrival from abroad are required to land on account of the customs and immigration laws in force. So important is the question of customs control, that although it is strictly a matter of internal law for each State, general provisions relative to customs in connection with international air navigation are, under article 36 of the International Convention, the subject of a special agreement contained in Annex H. to the Convention. This Annex provides that aircraft coming from abroad shall land only in those aerodromes specially designated by the Customs -- -- administration of each State, and named "Customs Aerodromes". Certain points are fixed by the contracting States on their frontiers and between them every aircraft which passes into that State from another must fly. If, by reason of a case of force majeure, an aircraft crosses the frontier at any other point, it must land at the nearest Customs aerodrome on its route. If however it is forced to land before it reaches that aerodrome the nearest police or Customs authorities must be informed. Certain classes of aircraft,

including postal aircraft,and aircraft belonging to aerial transport companies regularly constituted and authorised,may by arrangement with the customs and police administration be allowed to end their journey at inland aerodromes instead of at customs aerodromes. A distinction is drawn between foreign aircraft which neither set down nor take up goods in the State over which they fly,and those which do. Under Annex H the former aircraft are bound only to keep to the normal air route and make themselves known by signals when passing over certain fixed points. The latter are bound to land at a Customs aerodrome. In addition to any penalties which may be imposed by local law for infringement of these regulations, the State in which the aircraft is registered is bound,on the matter being reported,to suspend the certificate of registration of the offending aircraft,either for a limited time or -- permanently.

The Commonwealth Air Navigation Regulations do not contain any provisions relating to customs or giving effect to Annex H of the International Convention. An aircraft arriving in the Commonwealth or the Territories is required to comply with such of the provisions of the Commonwealth Regulations as are applicable to the case (Reg.7 (c)),but there is nothing in the regulations requiring aircraft to land on arriving from abroad. The English legislation on the other hand has given full effect to Annex H. (See Schedule VIII to English Consolidated Order).

Though aircraft of one State cannot claim any right to land in another State,the whole object of the International Convention is to encourage international communication by aircraft. So we find that Article 24 of that Convention provides that every aerodrome in a contracting State,which upon payment of charges is open to public use of its national aircraft,must likewise be open to the aircraft of all the other contracting States. In every such aerodrome the charges for landing and length of stay must apply alike to national and foreign aircraft. The Commonwealth Regulations

make no provisions for giving effect to this Article. Section 7 (2) and (3) of the English Consolidated Order give full effect to it.

Landing in foreign States

In regard to landing in foreign States, military aircraft are naturally treated on a different basis from private aircraft. For the purposes of the International Convention every aircraft commanded by a person in military service detailed for the purpose is deemed to be a military aircraft. (Article 31). No military aircraft of a contracting State is allowed to fly over the territory of another contracting State nor land thereon without special authorization. If it is so authorised, the military aircraft enjoys, in principle, unless otherwise stipulated the privileges which are customarily accorded to foreign ships of war. But if a military aircraft is forced to land or is requested or summoned to land, it does not, by reason thereof, acquire any right to such privileges. (Article 32). An express -- invitation or the express permission of the Minister for Defence or a Department of the Government of the Commonwealth is required for a foreign military aircraft to fly over or land in the Commonwealth. Any such aircraft to which such invitation or permission is given will be exempt from the Commonwealth Regulations to the extent and on the conditions therein specified. (Reg.5 First proviso).

The question as to whether aircraft may land on private property affects all aircraft in the State including foreign aircraft. It is entirely one of ---- national law. In the early stages of the development of air navigation, the right to land on private property was advocated by a few, but received little support. One of the more moderate proposals was that where there were no public aerodromes within a stated radius aircraft should be free to land on private property. But the absolute rights of property owners in this respect have never been seriously questioned. If sufficient public aerodromes are provided, there will be no necessity for landing on private property, though it has been suggested that the righ

to land under the compulsion of vis major,but only under such compulsion,can hardly be denied. So far as the Commonwealth is concerned,Reg.97 provides that nothing in the Regulations is to be construed as conferring on any aircraft,as against the owner of any land or any person interested in any land, the right to land on that land. Under Article 3 of The International Convention 1919 each contracting State has the right,for military reasons or in the interest of public safety,to prohibit the aircraft of the other contracting States,under the penalties provided by its legislation and subject to no distinction being made in this respect between its private aircraft and those of the other contracting States,from flying over certain areas of its territory. If it makes use of this right,it must publish and notify -- beforehand to the other contracting States the location and extent of the prohibited areas. By Article 4 every aircraft which finds itself above a prohibited area is required,as soon as aware of the fact,to give the signal of distress provided in Paragraph 17 of Annex D and land as soon as possible outside the prohibited area at one of the nearest aerodromes of the State unlawfully flown over.

Prohibited areas

In the Australian Air Navigation Regulations this matter is dealt with in Regulations 9 and 90. Under Reg.9 aircraft are forbidden to fly over any prohibited area. The Minister for Defence is given power by Reg.90 to declare any area to be a prohibited area for the purposes of the Commonwealth Regulations. But the Australian Air Navigation Regulations contain no provisions giving effect to Article 4 of the International Convention. Apparently the penalty prescribed in Reg.96 for the contravention of any of the Regulations is the only means of enforcing the observance of Reg.9, there being no provision for preventing aircraft from flying over the prohibited area such as is found in the English -- legislation. It should be noted that it is a good defence to any proceedings for offending against this Regulation

if the commission of the offence is proved to have been due to stress of weather or other unavoidable cause (Reg.96 (5)).(*1)

In the English legislation a different method has been adopted in reference to prohibited areas. While aircraft are forbidden to land in prohibited areas, they may fly over them, provided they do so at an altitude of not less than 6000 feet (Eng. Consolidated Order Section 4 (1) (iii). Any aircraft which flies or attempts to fly over a prohibited area in contravention of the English Consolidated Order is liable to be fired on in accordance with the provisions of Schedule VII to that Order (Eng. Consolidated Order Section 27 (4)). Schedule VII to the English Order describes the prohibited areas and makes provisions in accordance with the International Convention for the signals to be given to and by an offending aircraft. Under Section 6 of that Schedule if any aircraft flies or attempts to fly, over any prohibited area in contravention of the Order, and if, after the prescribed signals have been given by, or by the direction of, a commissioned officer in His Majesty's Naval, Military, or Air forces, the aircraft fails to give the signal prescribed and to land outside this prohibited area at one of the nearest aerodromes, the officer may fire at or into such aircraft and use any and every other means necessary to compel compliance. It may be noted that Section (4) of the English Consolidated Order and Section 6 of Schedule VII thereto prescribe the same mode of dealing with any aircraft which enters Great Britain and Northern Ireland in contravention of the English Consolidated Order. Australia has no similar provision for either case. In Japan, aircraft which fly over prohibited areas are liable to be seized and dismantled, and also to be confiscated.

A number of areas in the Commonwealth are prohibited to aviators.(*2) They include naval and military establishments, and explosive and munition works. It is suggested that even the maximum fine of £200- prescribed by Reg.96 (4) will not

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(*1) Cf. Eng. Consolidated Order Article 27 (1)
(*2) See Instructions to Airmen No:3/1930, No:12/1931 No:23/1931, No:24/1931, and No:10/1932

prevent flight over such prohibited areas by persons who may require information for other countries; and that it may be advisable in the Commonwealth Regulations to give power to prevent the infringement of Reg.9.

Amendment of Articles 3 and 15 of International Convention

A Protocol containing additions to and amendments of some of the Articles of the International Convention was adopted by the International Commission for Air Navigation on June 15, 1929. As all the States then parties to the International Convention have signed this Protocol and nearly all the necessary ratifications have been received, it seems reasonably certain that the International Convention will be amended in accordance with this Protocol. It inserts after the first Paragraph of Article 15 of the Convention, a -- provision that no aircraft of a contracting State capable of being flown without a pilot shall, except by special -- -- authorisation, fly without a pilot over the territory of another contracting State. An amendment to the final paragraph of that Article allows every contracting State to make conditional on its prior authorisation the establishment of international airways and the creation and operation of regular international air navigation lines with or without landing on its territory. After the first paragraph of Article 3 the Protocol inserts a provision that every -- contracting State may, as an exceptional measure and in the interest of public safety, authorise flight over prohibited areas by its national aircraft. The position and extent of prohibited areas must be previously published and notified to all the other contracting States, as well as to the International Commission for Air Navigation. The same applies to any exceptional authorisations under the above mentioned addition to Article 15. It is further provided that each contracting State reserves the right, in exceptional -- -- circumstances, in time of peace and with immediate effect, temporarily to restrict or prohibit flight over its territory or over part of its territory on condition that such -- -- restriction or prohibition shall be applicable without --

distinction of nationality to the aircraft of all other States. Such decision must be published,notified to all the contracting States and communicated to the International Commission for Air Navigation.

Nationality of aircraft

Chapter 2 of the International Convention deals with the nationality of aircraft. In the years preceding 1919,various proposed International Conventions dealing with air navigation were under discussion.(*1) They all provided that,before it could enjoy the benefits of the Convention,an aircraft must possess the nationality of one of the States which was a party to such Convention,and that the State which conferred its nationality upon an aircraft,should register it. -- Nationality and registration were thus associated in such a way that it became accepted that registration conferred upon the aircraft the nationality of the registering State. The power of States to refuse or to cancel registration and so prevent aircraft enjoying the benefits of the Convention, also acted as a means of ensuring that those aircraft which accepted the benefit of the Convention should comply with all the conditions laid down in that Convention. While no International Convention can dictate to a State the -- conditions on which it is to grant nationality to aircraft, it is obviously most desirable that the conditions on which nationality is conferred should be the same in all States.

Of the different principles advocated for deciding the nationality of aircraft 5 may be mentioned.

(1) That the nationality of an aircraft should be that of the country in which it is built,because before it is used a certificate of navigability must be issued,and obviously this is obtained from the country in which such aircraft is built. Little support was given to the proposal

(2) That the nationality of aircraft should be determined by the place of registration

(3) That the nationality of aircraft should be determined by the domicile of the owner. Domicile implies a certain permanency of residence connecting the owner of the aircraft

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(*1) See Page 1 Supra

and the country in which he is domiciled. In the case of aliens long domiciled in a country, it would be difficult to have to apply to their own national State to register their aircraft for use, chiefly at any rate, in the country in which they are domiciled. One drawback to this proposal would arise from the fact that under some legal systems a person may have more than one domicile.

(4) That an aircraft should have the nationality of its owner, the nationality of the owner being considered more fixed and certain than his domicile. In support of this suggestion it was contended that if an aircraft owner who was domiciled in one foreign state got into trouble with the authorities of another foreign state, the country of which he is a national would be far more likely to take diplomatic action to obtain redress for him than the country of his domicile. Further in time of war aircraft would be subject to requisition by the "State of the flag", which would naturally be the State of which the owner is a national rather than the State in which he is domiciled. This principle was also supported on the ground that for dealing with crimes and delicts committed on aircraft the law of the owners nationality should apply rather than that of his domicile

(5) That the nationality of an aircraft should be that of the aircraft's "port d'attache" or home port, i.e. the place where the aircraft is generally housed and kept. As some people have a double nationality, while that of others is doubtful, and others have none at all it was claimed that this suggestion would overcome any difficulties which might arise from -- determining the nationality of the aircraft by that of its owners. It would also avoid any question arising as to the domicile of an owner.

Provisions of International Convention relating to nationality

The International Convention 1919 has adopted the principle that an aircraft possesses the nationality of the State on the register of which it is entered in accordance with the provision of Section 1 (c) of Annex A to the Convention (Article 6). This Section lays down that the entry in the

register and the certificate of registration shall contain a description of the aircraft and shall indicate the number of other identification mark given to it by the maker; the nationality and registration marks allotted to the aircraft in accordance with Section 1 (a) of Annex A; the usual station of the aircraft; the full name,nationality and residence of the owner and the date of registration. An aircraft cannot be validly registered in more than one State (Article 8) and cannot be entered on the register of a State unless it belongs wholly to nationals of such State (Article 7). No -- -- incorporated Company can be registered as the owner of an aircraft unless it possesses the nationality of the State in which the aircraft is registered,unless the president or chairman of the company and at least two-thirds of the directors possess the same nationality,and unless the company fulfils all other conditions which may be prescribed by the laws of that State. (Article 7). Each month the contracting States have to exchange among themselves and transmit to the International Commission for Air Navigation (*/) copies of -- registrations and of cancellations of registrations which have been entered on their official registers during the preceding month (Article 9.)

In order to ensure that only the contracting States shall enjoy the benefits resulting from the convention it is also provided that no contracting State shall,except by a special and temporary authorisation,permit the flight above its territory of an aircraft which does not possess the nationality of a contracting State unless it has concluded a special convention with the State in which the aircraft is registered. The stipulations of such special Convention must not infringe the rights of the contracting parties to the present Convention and must conform to the rules laid down by the said Convention and its annexes. Such special Convention must be communicated to the International Commission for Air Navigation which will bring it to the knowledge of the other contracting States

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(*/) See Article 34 of the International Convention

(Article 5 as added to). All aircraft engaged in international navigation must bear their nationality and registration marks as well as the name and residence of the owner in accordance with Annex A (Article 10).

System of registration of aircraft compared with that applied to ships

It will at once be noted that the system of registration of aircraft appears very similar to that which has long been applied to ships. Under the maritime laws of many countries a ship possesses the nationality of its owners and must be registered in the country whose nationality it holds. Aircraft have gradually taken their place with ships as a recognised means of transport,and it will be found that many of the terms used in connection with aircraft have a nautical flavour,e.g. registration,certificate of competency,airworthiness,log book, pilot,collision,red and green lights,lighthouse. As a result there is a natural tendency to extend maritime principles to aircraft. To some extent a ship is treated as a floating part of the territory of the state which registers it. On examination it will be seen that undesirable complications may easily follow from treating aircraft in the same way(*1).

The system of registering ships was first employed by commercial nations to prevent encroachment upon the privileges of trade,which,for the advancement of their national prosperity,they conferred upon the ships belonging to their own countrymen. It was first introduced in England by the Navigation Act 12 Car.2 c.18 (1660),its object being to reserve to British ships British commerce by sea. In 1681 an ordinance was issued in France requiring French subjects to register their ships in order to preserve the privileges of the French flag to its own subjects. In 1792 the U.S.A. enacted regulations for registering ships on similar lines to the British(*2). The original purpose of registration no longer exists and in the case of British ships the register now serves merely as an official record of ownership,and shows what ships are entitled to use the British flag. It does not appear that the registration of

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(*1) See Spaight,Aircraft in Peace and the Law,pp.19-20
(*2) See Abbott,Law of Merchant Ships and Seamen,14th Edit. Chap.2

any British ship is compulsory,nor that registration confers nationality. If British subjects own a ship their nationality attaches to that ship,and Lord Justice Brett,in The Chartered Bank of India v The Netherlands India Steam Navigation Co. (1880) 10 Q.B.D. 534,went so far as to lay down that every ship owned entirely by British subjects is a British ship even though registered by and under the flag of a foreign state. But registration is necessary to entitle a ship to recognition as a British ship and to the consequent privileges and -- protection,for registration is proof that a ship possesses the qualifications required for it to be recognised as British. If a ship,though owned by a British subject,is not registered, it is not entitled to be recognised as British and it is not entitled to any benefits privileges or advantages enjoyed by a British ship,nor to use the British flag or assume the British national character,but so far as regards the payment of dues,the liability to fines and forfeitures and the punishment of offences committed on board such ship,or by any persons belonging to her,such ship is to be dealt with in the same manner in all respects as if she were a recognised British ship.(*1)

Though registration does not confer nationality on a ship, registration and nationality are closely connected,for not only does the ship thereby acquire privileges and become subject to liabilities but the State registering it also acquires rights and assumes heavy responsibilities in respect of that ship. Under International Law a merchant vessel registered by a State is regarded as the property of that State. As a result that State protects that vessel from wrongful interference and has administrative and criminal jurisdiction over all acts done on board,whether by its own subjects or by foreigners,and it has full civil jurisdiction over its subjects and foreigners on board that ship to the same extent as if they were in the State. On the other hand the State becomes responsible for all acts of hostility against another State done on the ocean

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(*1) Sec.72 of The Merchant Shipping Act 1894.

by a merchant vessel which is on its register,and must allow foreigners to use its courts for obtaining redress for wrongful acts done to them by the vessel or persons on board her.(*1) In view of these rights and duties,a State must -- exercise the greatest caution and control when admitting merchant vessels to its nationality.

Between a ship and an aircraft there are very vital differences. A ship being confined in its operations to the sea can only touch the coast and ports,practically -- speaking,of the State,and when it is not within the territoria waters of a State,it is on the high sea,which is free to all. There is consequently little trouble from treating a ship as controlled by the State which registers it. An aircraft may similarly fly over the high sea,and would then be in a zone which is free to all: but most of its flights will be over the territory of one State or another: so that an aircraft flying over and landing in different States will be brought into relations with the authorities and peoples of those States in a way in which ships are not. It is obvious that a State needs far greater control over foreign aircraft than over foreign ships. Granting nationality to aircraft in the same way as to ships,and treating them as being under the -- -- jurisdiction of the State whose nationality they possess regardless of the State over which they fly and in which they land,must continually give rise to incidents leading to international troubles.

Suggestions regarding nationality of aircraft

On account of the nature of the contact between aircraft and States,there is strong reason for allowing States to deal with foreign airmen and their craft,when within their borders, freely and without regard to any question of infringing the powers and authority belonging to another State. It has therefore been contended that aircraft should have no nationality. Dr Spaight,one of the most eminent authorities on air navigation,though opposed to treating an aircraft as having,like a ship,the full nationality of the State which registers it,considers that occasions will arise when some

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(*1) See Hall on International Law.

given nationality must be attached to an aircraft,but this nationality should only be a conditional or quasi nationality, which would come into being only in certain circumstances,e.g. when the aircraft is passing over the high seas. Such quasi nationality need have no connection with the nationality of the owner of the aircraft,but there seems to be no reason why it should not depend upon the country in which the aircraft is usually located(*').

Difficulties arising under the International Convention

The provisions of the International Convention give rise to further difficulties. Intercourse between States is so great nowadays that in most States we find a great number of foreigners residing,some with the idea of remaining permanently, others perhaps for a few years. Many of them may not desire to acquire the nationality of that State: indeed it is against the policy of nations to have their nationals adopt the -- nationality of another country. But under the International Convention they cannot register an aircraft in the State in which they reside unless they are nationals of that State. Their only method is to register the aircraft in the country of which they are nationals. This may be somewhat -- difficult in the case of persons who have been long absent from that country. Further it leads to extraordinary positions. In the first place,a State is likely to have a large number of aircraft of foreign registration permanently located within its territory,many of them perhaps never leaving it,yet such craft must be considered as foreign aircraft. Thus a German owned aircraft must be registered in Germany and,though it is permanently located in England and may never leave there,it is regarded as a German aircraft. Again,should any of such aircraft visit another State and incur liabilities there,it is difficult to see in what manner the State in which it is registered can grant redress since the aircraft has its usual location in another State. Surely the State in which the aircraft is usually located is in a better position to deal with such a matter. In such a case

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(*') Spaight,Aircraft in Peace and the Law,at p.20

registration in the State of nationality may prove quite a useless record even for tracing and identifying an aircraft which is located in another State, for the Convention does not make any provision as to the registered owner notifying changes in his address or in the location of the aircraft, so long as there is no change in its registration. Nor will that aircraft be registered in the State in which it is located

These facts seem to destroy much of the value of registration, the main object of which is undoubtedly to enable an aircraft to be identified at any time and in any place (i.e.) it is really for police purposes. In the case of an aircraft registered in one State and permanently located in another, such registration may, as we have seen, prove useless for police purposes. It means that each State must, from the copies of registrations supplied by other States in accordance with the International Convention, compile a list of all aircraft of foreign nationality -- permanently located in its territory.

So strongly do some countries object to their nationals assuming the nationality of another country that they refuse to acknowledge that they have thereby lost their original nationality. As a result some people have a double -- nationality. On the other hand, there are some who have no nationality at all. In the former case presumably the -- aircraft could be validly registered in either the original country or the country adopted, while on the latter case registration would not be possible.

One particular object of the Convention is, as stated previously, to ensure that only aircraft of States that are parties to the Convention enjoy its privileges. Most of the important States are parties to the Convention. Should a person, resident in a State which is not a party, be a national of a State which is, he can under the provisions of the Convention register his aircraft in the latter State and immediately take it to and house it in the former, and use it

for making flights over States which are parties to the Convention. This seems an evasion,at least in spirit,of the Convention.

Were all the nationals of a State permanently domiciled in that State,the registration of their aircraft in -- -- accordance with the Convention would present little difficulty. In fact under such conditions many workable schemes could be found. The greatest difficulties in finding a workable scheme arise from intercourse between States as a result of which many nationals of each State are found residing,some permanently,in other States. And this intercourse will tend to increase more and more,as the development of aircraft proceeds.

The strongest of the arguments in favour of determining the nationality of an aircraft by that of its owner is that there must be some law to apply to crimes committed on an aircraft when in flight and that such law should be that of "the flag". This is a direct application of maritime law to aerial navigation and it is a very questionable one. If some law must apply,it seems much more satisfactory to apply that of the country in which the aircraft is usually housed and with which in consequence it has some direct connection: for in many cases after being registered it may never enter or have any connection with the country of which the owner is a national. So far as diplomatic protection is concerned, a national of one State would not lose his nationality because another State registers his aircraft and if that latter State failed to look after his interests,he could still obtain diplomatic assistance from his own national State,if the matter was of sufficient importance to warrant it. For it is submitted that Lord Brett's decision regarding ships, referred to above,would apply to aircraft; so that regardless of the place of registration and of any quasi nationality attaching to an aircraft by reason thereof,an aircraft owned entirely by British subjects for example,would be a British aircraft. It has also been contended that in time of war the

right to requisition aircraft belongs by virtue of -- registration to the country conferring nationality on the aircraft,and that such country should be that of which the owner is a national. But,in the event of war,it would be quite in accordance with international law for a belligerent State to requisition the aircraft of resident aliens.(*1)

This method of determining the nationality of aircraft by that of its owner is unsatisfactory when the owner is a company,because of the lack of uniformity in the company laws of the various countries. Several rules have been suggested to meet the position; one that the nationality of an aircraft owned by a limited company should be that of the company's place of business: another that it should be determined by the situation of the Company's head office. As we have seen the International Convention 1919 provides that no incorporated company can be registered as the owner of an aircraft unless it possesses the nationality of the State in which the aircraft is registered,the president or chairman of the company and at least two-thirds of the directors possess such nationality,and the company fulfils all other conditions which may be -- prescribed by the laws of such State. In most States,there is little difficulty in registering a company,so that by means of a few mock directors,setting up a "head office" and complying with any other formalities of a particular State's company laws,the rule making the owners and the aircrafts nationality correspond,while technically complied with,is in reality evaded. For there is usually little or no -- -- restriction as to the nationality of the shareholders,who may all be foreigners.

It is submitted with reference to the proposal to determine nationality of aircraft by the domicile of the owner that though residence in a country implies a certain connection with it,disputes are constantly arising over the question as to what constitutes domicile,and under some legal systems a person may have more than one. The greatest difficulties again arise in the cases of aliens in the State.

(*1) See Spaight Aircraft in Peace and the Law page 25 - 26

Suggested alterations to method of fixing nationality of aircraft

Many of the difficulties indicated above would be avoided if the nationality of aircraft were that of the country in which their headquarters or "port d'attache" are situated. Under this method, the disabilities of alien residents of a State regarding registration of aircraft would be removed, and doubtful nationality or domicile would not prevent a resident registering a machine in the State in which he resides if the machine be kept there. At the same time, nationals of any State, owning aircraft in their State would be in the same position as under the present registration system. From the police point of view, identification of machines would undoubtedly become far easier and consequently more reliable. For the authorities would probably be well acquainted with all aerodromes in their respective localities and the aircraft permanently housed there. Again under such a system, the registration and record of an aircraft's identity is more likely to be up to date if made and kept in the country in which the aircraft is permanently housed. Under the present system, in the case of aircraft of one nationality being permanently located in a foreign State, the record of changes in that aircraft's ownership, place of houseing, distinguishing marks, structural alterations, &c, may easily be neglected and therefore unreliable for there is no provision for the foreign country notifying registrations or changes of registration except of aircraft on its own register, and the owner being away from the country where the aircraft is registered, may not trouble to send notice of changes. Unquestionably the most reliable record can be kept in the State where the aircraft is permanently, housed, for there in the ordinary course an inspection of the machine can be made whenever desirable. And as previously pointed out, one of the main objects of registration is to enable aircraft to be identified at any time and place. The owner's -- responsibility for damage done by his aircraft will not be altered or lessened by attaching to his craft a quasi-nationality, which is determined by that of the country in

which the craft is normally housed,and may thus be different from the nationality of the owner. As previously pointed out,the State in which an aircraft is permanently housed is in a far better position to enforce observance of the Convention and grant redress for breaches of same or for damages than the State of which the owner is a national,but in which he does not reside or keep his machine. It has also been pointed out that in the event of the State,in which the aircraft is permanently housed and whose nationality the aircraft would possess for the purposes of the Convention, failing to grant diplomatic protection to the owner in trouble with the authorities of another State,such owner could always appeal to the State of which he is a national.

The object of the Convention is to secure freedom of passage for the aircraft of each State which is a party to it, over all the other States which are parties. If a State is willing to allow foreigners to reside in its territory,there seems to be little reason why it should not also allow these foreigners to fly their aircraft over its territory,just as it allows them to use motor cars,provided they abide by the laws of the State. In the case of flights over States,of which the aircraft owner is not a national and in which the machine is not registered,it seems immaterial which State has registered his machine,so long as the State of registration is not rendered liable to the States flown over for the acts of the aviator and his aircraft and the latter States are not restricted in enforcing observance of their laws by foreign aircraft.

There is nothing to prevent each State deciding to register only the aircraft belonging to its own subjects and normally housed in its own territory.(*/) Such a system would get over the difficulties arising under the present Convention in respect of the registration of aircraft of foreigners resident in a State by simply debarring persons resident in a State of which they are not nationals from registering

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(*/) Spaight "Aircraft in Peace and the Law" at p.26

aircraft. But this restriction seems opposed to the purposes underlying the International Convention,and would give less freedom of registration than the Convention actually allows.

Commonwealth Regulations regarding registration

On this matter of registration the Australian legislation could be made more explicit,in order to prevent any infringement of Articles 5,7,and 8 of the International Convention. The Minister for Defence may grant to the owner of any aircraft a certificate of registration in respect of the aircraft and shall assign to the registered aircraft a registration mark (Reg.16). Applications for registration are to be made through the Controller of Civil Aviation, Melbourne. In the ordinary course a Certificate of registration will remain in force for not more than twelve months and may then be renewed (Reg.16). There is no provision in the Commonwealth Regulations expressly forbidding an aircraft already registered in a foreign State from being registered in Australia in contravention of the Article 8 of the International Convention. In Great Britain it is provided that no aircraft shall be registered in Great Britain and Northern Ireland which is already validly registered in any other State. (Sec 1 Sched.1 of Eng.Consol. Order). It should be noted that this provision did not appear in the early English legislation,so that it is evident from its insertion that circumstances rendered it necessary, and presumably the same will be found necessary in Australia. In any case,to carry out the Convention properly,a provision should be inserted in Australian Regulations. Unless the Minister for Defence otherwise directs,a certificate of registration shall not be granted in respect of any aircraft unless it is owned wholly either (a) by British subjects or persons under His Majesty's protection: or (b) by a company organized and incorporated under the laws of a part of His Majesty's dominions and having its principal place of business within His Majesty's dominions and which is registered within the Commonwealth or within a State or Territory of

the Commonwealth and of which all the directors and -- shareholders are British subjects or persons under His -- Majesty's protection; or (c) by the Government of the -- Commonwealth or of a State or of a Territory of the Commonwealth or of any authority constituted by or under an Act of the Commonwealth or of a State or an Ordinance of any such Territory. (Reg.17).

The main difficulty regarding this Regulation is the interpretation to be placed upon the words "persons under His Majesty's protection". As we have seen the International Convention lays down that States shall only register aircraft which belong wholly to nationals of such State. Had the Commonwealth Regulations restricted registration of aircraft to British subjects, they would be in compliance with the International Convention. This was the case until January 1932 when "persons under his Majesty's protection" were made elegible to register their aircraft. In Coke's 3rd Inst. the law is thus stated:- "All aliens that are within the realm of England, and whose sovereigns are in amity with the King of England are within the protection of the King, and do owe a local obedience to the King". In Volume 1 of Halsbury (2nd Edit) at page 448 (Sect.756) it is laid down that an alien friend has no legal right to enter British territory, but while in this country he enjoys protection for his own person, his family and effects, and in return owes a temporary and local allegiance to the Crown to the same extent as a British subject. In R. v Francis ex parte Markwald, (*1) Mr Justice Lawrence said "It is quite true that allegiance creates reciprocal rights and duties. Allegiance is not created by the oath (of allegiance), it exists apart from it and before any oath has been taken, as in the case of a natural born subject, so also in the case of the foreigner resident within this country or within the dominions of the King. The oath of allegiance does but consecrate the allegiance already existing. In DeJager v Attorney General of Natal (*2) it was

(*1) 874 J.K.B. (1918) at p.624
(*2) 1907 A.C.326

laid down as old law that an alien resident within British territory owed allegiance to the Crown; the reason assigned by some authorities being that while in British territory he received the King's protection. Most countries have special legislation dealing with the admission of aliens, but it is the general rule that the aliens who are permitted to reside in a State are admitted to all common rights. In Low v Routledge,(*1) Lord Justice Turner in the course of his judgment, said:- "Every alien coming into a British colony becomes temporarily a subject of the Crown, bound by, subject to, and entitled to the benefit of, the laws which affect all British subjects". If an alien is merely passing through, or temporarily resident within the territory, he owes only a temporary obedience to the local laws, and possesses only a corresponding right to protection. But an alien who becomes a permanent resident of a State is under the immediate protection of that State and owes it provisional allegiance, whether such residence amounts technically to a domicile or not, though at the same time he retains an ultimate right to the protection of his own State.(*2) Not only do aliens within a State owe temporary or provisional allegiance to the local law, according to the temporary or permanent nature of the residence, and are entitled to its protection, but, in general, the State to which they belong is entitled to require from the State in which they reside, that the latter shall ensure that laws for their protection are adequately enforced. At the same time, they are not entitled to greater protection than native residents, and cannot, in general complain if they suffer only in common with other inhabitants of the country.(*3) It seems therefore that under the provisions of the Commonwealth Air Navigation Regulations, an alien permanently resident within the Commonwealth is eligible to register his aircraft in the Commonwealth. And it seems that an alien merely passing through or temporarily resident within the

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(*1) 35 L.J.Ch 114
(*2) See Rex v Badenhorse (21 Natal L.R. 227)
(*3) See generally Pitt Cobbett's leading Cases on International Law, Part 1, Pages 206 - 214

Commonwealth is in the same position. This is distinctly opposed to the provisions of the International Convention. Aliens of course are only under protection during residence. Were the provision confined to "persons under His Majesty's protection so long as they reside within the Commonwealth and ordinarily keep their aircraft there", effect would be given to the principle of registration recommended earlier as most satisfactory, though of course contrary to the International Convention. But the words in the Regulation are not qualified in any way.

It may be that, by the addition of the words "persons under His Majesty's protection", it was intended to give effect, so far as registration is concerned, to the latter portion of Article 40 of the International Convention. This provides that territories and nationals of Protectorates or of territories administered in the name of the League of Nations shall, for the purposes of the International Convention, be assimilated to the territory and nationals of the Protecting or Mandatory States. So far as colonial protectorates are concerned, this provision acknowledges a recognised principle of international law namely that all the inhabitants of a colonial protectorate are subjects of the protecting state for international purposes.(*/) It is submitted that the words in the Commonwealth Reg. have not such a limited effect as such Article of the International Convention.

Under the present Commonwealth Reg. 17 (a) owners of aircraft who are British subjects are eligible to register their aircraft in the Commonwealth without regard to their place of residence or the place at which the aircraft is kept. The same applies to the nationals of Commonwealth Protectorates or of territories administered by the Commonwealth in the name of the League of Nations. This is quite in accordance with the provisions of the International Convention which, as we have seen, takes account only of the nationality of the owner of the aircraft. Aliens resident in the Commonwealth, and probably aliens residing in

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(*/) See Lawrence "The Principles of International Law" (6th Edit.) at p. 172

Commonwealth Protectorates,are eligible to register their aircraft only so long as they so reside. But there is nothing to prevent such an alien removing his aircraft to a foreign country after registration,though he would not then be eligible to renew that registration. In addition an alien,resident in any other part of the British Empire and so "under His Majesty's protection", seems to be eligible to register his aircraft in the Commonwealth.

Until January 1932 the Commonwealth Regulations only required a Company to be registered in and have its principal place of business in Australia or a Territory. They -- contained no requirements regarding directors. Now,were it not for the effect of the words "persons under His Majesty's protection" at the end of Reg.17 (b),the Commonwealth -- Regulations would be stricter than the International Convention in the conditions relating to the nationality of companies. For whereas under the International Convention it is necessary only for the president or chairman of a Company and two-thirds of the Directors to possess the nationality of the State in which the Company desires to be registered as the owner of an aircraft,the Australian Regulations require not only all Directors but all the shareholders as well to be British subjects,or persons under His Majesty's protection. We have noted the persons who may come within the scope of the words "persons under His Majesty's protection". As a result of the inclusion of these words in Reg.17 (1) it seemspossible for a Company registered in and having its principal place of business in Australia and of which all the Directors and shareholders are aliens resident in Australia to register its aircraft under the Commonwealth Regulations. This is not in accordance with the provisions of the International Convention. It is necessary to bear in mind that the States of the Commonwealth each have their own company laws. Provided the other requirements of Reg.17 (b) are fulfilled,registration under the law of any State is sufficient to entitle the Company to register its aircraft in the Commonwealth. --

Reg.17 (c) makes provision for the registration of aircraft owned by the Government of the Commonwealth,or of a State, or of a Territory of the Commonwealth or of any authority constituted by it under an act of the Commonwealth or of a State or an ordinance of any such Territory. Now Reg. 4 (1) (a) provides that nothing in the Regulations shall be deemed to affect or restrict the right of any State -- Government in respect to the right to own and/or use for the purposes of the Government of the State aircraft operating within the State. This provision is made in accordance with two of the reservations contained in the Tasmanian and Queensland Acts which refer to the Commonwealth Parliament the control of air navigation.(*1) But it will be seen that the exemption granted under Reg. 4 (1) (a) only applies to the use of State aircraft for the ~~principles~~ purposes of the Government of the State while they are operating within the State. It appears as though registration is necessary if one State desires to use aircraft owned by it for flight over another State. Presumably,there is nothing to prevent a State registering its aircraft even if they operate only within the State. But so long as they operate only within the State which owns them and for the purposes of the Government of that State registration under the Commonwealth Regulations cannot be insisted upon,as that would be a restriction within the meaning of Regulation 4 on that State's right to use aircraft. However if State-owned aircraft were used for purposes which could not be regarded as "purposes of the Government of the State",they would then need to be registered in accordance with the Commonwealth Regulations.

English legislation

The English legislation as to the registration of aircraft belonging to individuals is similar to the Commonwealth Reg.17 (a). To render a Company eligible to register its aircraft, it must be registered and have its principal place of business in His Majesty's dominions and the chairman and at least two-thirds of the directors be British subjects or persons under His Majesty's protection. (Eng.Consolidated Order Sched.1 Sec.

(*1)See Page 6 supra.

There are no requirements as to the nationality of shareholders in the Company as in the Commonwealth Regulations.

Registration and nationality marks

Upon the issue by the Commonwealth authorities of a certificate of registration of an aircraft, registration and nationality marks must be affixed or painted on the aircraft in the manner prescribed by the Regulations, for flight is prohibited unless, inter alia, the aircraft bears such marks. (Reg.6 b.). These marks are to be such as the Minister directs. (Reg.41). They are to be painted on the portions of the aircraft detailed in Reg.42, and the height and width of the numbers or letters of which the marks consist are prescribed by Regulations 43 and 44. These Regulations are based upon Annex A to the International Convention, which prescribes the nationality and registration marks to be affixed to all aircraft engaged in international navigation in accordance with Article 10 of the Convention. The nationality mark prescribed by this Annex consisted originally of one capital letter in Roman characters and the registration mark of a group of four letters. The nationality mark of each State applies to the aircraft of its Dominions, Colonies, Protectorates, dependencies, or of countries over which it is the Mandatory State. But many of these marks have been changed. Now only a few countries are allotted a single nationality letter, the remainder using two letters. And the various countries forming the British Empire have each been allotted separate nationality marks instead of using one common to the Empire.

The Commonwealth certificate of registration of an aircraft becomes void at the expiration of two weeks after any change of ownership of the aircraft but a fresh certificate may be issued to the new owner(Reg.18). The Minister has power to cancel or suspend, for such period as he thinks fit, the registration of any aircraft, if in his opinion sufficient reason exists for such cancellation or suspension, and he has likewise the power to remove such suspension. On such cancellation, or during the period of such suspension, any certificate of registration granted to such aircraft becomes void. (Reg.20).

In addition to provisions on the same lines as the Commonwealth Regulations relating to registration and nationality marks and to changes in ownership, the English legislation requires the owner to give notice if a registered aircraft has been destroyed or permanently with-drawn from use. Its registration and the certificate then lapse. (See Sched. 1 to Eng. Consolidated Order). The English legislation also provides that "an aircraft shall be deemed to possess the nationality of the State in the register of which it is entered" (Sec. 1 of Consol. Order). No similar provision for giving effect to Article 6 of the International Convention is contained in the Commonwealth Regulations, nor do those Regulations prevent the aircraft of States, not parties to the International Convention, from enjoying in Australia benefits which that Convention intended should be reserved to the contracting States. Two of the conditions as to flying in the Commonwealth and its Territories are that the aircraft shall be registered in the prescribed manner and shall bear the prescribed registration and nationality marks, affixed or painted on the aircraft in the prescribed manner. (Reg. 6 (a) and (b)). It must be noted that "prescribed" means prescribed by the Australian Air Navigation Regulations. The result is that for ordinary flying purposes in Australia, registration in Australia is necessary. But special provision is made in Regulation 5 in the case of foreign aircraft.

Commonwealth Regulations relating to foreign aircraft

This Regulation first makes inapplicable to foreign aircraft Parts 4, 5, and 7 of the Regulations i.e. the regulations dealing with registration, inspection, and certificates of airworthiness, licensing of personnel and log books. It then provides that foreign military aircraft may only fly over or land in the Commonwealth by express invitation or with express permission and in such cases shall be exempt from the Regulations to such extent and on such conditions as are specified in the invitation or permission. A further proviso deals with foreign aircraft, which have

landed in the Commonwealth and fly over any part of it,where such flight is made not simply in the ordinary course of proceeding to a foreign destination. To such aircraft all the provisions of the Regulations are declared to apply unless there are carried in the aircraft and produced for inspection when required,certificates,licences and log books, issued by the responsible authority in the country to which the aircraft belongs and complying substantially with the provisions of the Australian Regulations: and unless,in the case of passenger aircraft,the condition of the aircraft, having regard to the safety of the passengers and personnel, corresponds substantially with the particulars contained in the certificate produced. If the foreign certificates, licences,and log books do not comply with the provisions of the Commonwealth Regulations or if they are not carried in the aircraft and produced as required,the Commonwealth Regulations as to,inter alia,registration will apply,i.e. before being permitted to fly in the Commonwealth,the foreign aircraft will need to be registered in the Commonwealth. The possibility of doing this will depend on whether the aircraft's owner is eligible under Regulation 17. Although the registration in Australia of an aircraft already -- registered in another contracting State is a breach of Article 8 of the International Convention,the Commonwealth Regulations do not prohibit it. Further it will be noted that there is nothing in the Commonwealth Regulation to prevent aircraft registered in any foreign country which adopts the standards and methods of the Commonwealth regarding certificates,licences,&c. from enjoying the privilege of flying freely in Australia,even though that country is not a contracting State and has not entered into any separate convention with Australia. It may be argued that conforming to the provisions of the International Convention on this matter is unimportant so long as the foreign aircraft and personnel are up to Australian standards,and indeed it may be so when considered merely from that view point. But

if one contracting State fails to carry out some provisions of the International Convention and another State other -- provisions, the benefits of the Convention may be lost. The Commonwealth legislation should give effect to all the -- provisions of the Convention since the four States have referred the matter of aviation to the Commonwealth for legislation and the Commonwealth is a party to the Convention.

English legislation relating to nationality of aircraft

Contrast with this the English legislation which lays down that an aircraft shall not fly within Great Britain and Northern Ireland unless it possesses the nationality of a contracting State (Sec.4(I)(1) Eng.Consolidated Order). Exemption is granted to the aircraft of a State with which a special convention relating to air navigation is in force, so long as the conditions of that Convention are fulfilled (Proviso (a) to Sec.4 (1) English Consolidated Order). There is also a provision similar to the Australian that an aircraft shall not fly unless it is registered and bears the prescribed nationality and registration marks; but this is extended to require the name and residence of the owner to be affixed in prescribed manner (Section 3 (1)(i) English Consolidated Order). The English legislation however provides that in this Section 3, "prescribed" in relation to foreign aircraft means prescribed by the law of the State in whose register the aircraft is entered.

Amendment of Article 7 of International Convention

Various suggestions for altering the method of fixing the nationality of aircraft have been mentioned. An important alteration is contained in a Protocol which was approved by the International Commission for Air Navigation on June 15, 1929. This alteration to the International Convention has not yet come into force, but all the necessary States have signed the Protocol and only a few ratifications are now required for the Protocol to take effect in -- accordance with Article 34 of the Convention. Article 7 of the Convention at present provides that no aircraft shall be entered in the register of one of the contracting States unless it belongs wholly to nationals of such State. The

Protocol abandons that requirement and simply provides that registration of aircraft shall be made in accordance with the laws and special provisions of each contracting State. If this amendment become effective, there will no longer be one fixed test to be applied by all the parties to the Convention. There will be nothing to prevent any State from continuing to register only aircraft belonging to its own nationals. On the other hand, it will be possible for States, if they think fit, to register aircraft belonging to foreign residents. Each State may adopt any provisions it thinks fit for -- determining what aircraft it will register, so long as it respects the provision of Article 8 of the International Convention that an aircraft cannot be validly registered in more than one State. The result of registration will still be that the aircraft thereby acquires the nationality of the State which registers it. The extent of the -- obligations which a State incurs in respect of the aircraft it registers will no doubt be taken into consideration in fixing the requirements for registration. The present Commonwealth provisions would not infringe these proposed amendments to the Convention, though questions may still arise as to who are "persons under His Majesty's protection". It will still be necessary to make provision for ensuring that the Commonwealth complies with Article 8 of the -- International Convention.

Safety in air navigation

One of the most difficult problems with which the propounders of the Convention had to deal was as to the means to be adopted for ensuring safety in air navigation. In this matter, in addition to the crew and the passengers in any aircraft, the general public are also concerned. Indeed the general public are more vitally interested in the provisions for ensuring safety in air navigation than in those relating to any other means of transport, for the public carried by aircraft are few when compared with those over whose heads they fly; and the danger to the general public is so much more extensive than that occasioned by other forms of transpor both from the comparative frailty of the vehicles and from the

sphere in which they travel.

The International Convention has adopted two means of ensuring safety, the issue of certificates of airworthiness for aircraft and of certificates of competency for the crews operating aircraft.

Certificates of airworthiness

Article 11 of the Convention provides that every aircraft engaged in international navigation must, in accordance with Annex B, be provided with a certificate of airworthiness issued or rendered valid by the State whose nationality it possesses. Annex B lays down in a general manner the main conditions governing the issue of certificates of airworthiness. Aircraft must comply with certain minimum requirements relating to safety of design, demonstration of flying qualities, and construction (with regard to workmanship and materials). Every aircraft must be equipped with suitable instruments for safe navigation. These minimum requirements are to be fixed by the International Commission of Air Navigation. Until they are so fixed, each contracting State is to determine the detailed regulations under which certificates of airworthiness shall be granted or remain valid.

The general provisions relative to the issue of certificates of airworthiness in Australia are contained in Part IV Division 2 of the Commonwealth Regulations. A certificate of airworthiness may be granted by the Minister for Defence to a constructor of aircraft in respect of one aircraft of any type - referred to as a "type aircraft". The fee payable for such a certificate is Five guineas. (Reg. 21). On the issue of such certificate, employees of that constructor, who are licensed for the purpose, shall, under arrangements approved by the Minister, inspect for airworthiness any other aircraft of that same type constructed by the constructor, and if the aircraft conforms in all essential respects with the type aircraft and is of satisfactory workmanship and materials, the Minister may issue to the constructor a certificate of airworthiness in respect of the aircraft. As a safeguard, the Minister for --

Defence may take steps to test the inspection made by the employees of the constructor,and if the test inspection in his opinion warrants such a course,he may order a further test of the aircraft to be carried out by some one authorised by him,and after that further inspection he may issue or refuse a certificate,and also may issue or refuse to issue certificates of airworthiness in respect of any other -- aircraft of the same type which has been or may be -- constructed by the constructor. The fee payable for a certificate issued under this regulation is £1:1:0 (Reg.22). The inspection of the first aircraft of any type for which a certificate of airworthiness is desired under Reg.21(1) will no doubt be made by inspectors licensed to inspect aircraft for airworthiness under Reg.27. During the construction of a passenger aircraft these inspectors must, at all times during working hours,have access,for the purpose of inspection,to that portion of the workshops in which parts of the aircraft are being manufactured or assembled,and to drawings of the parts under inspection,whether at the works of the main contractor or of sub-contractors (Reg.92(b)).

These Commonwealth Regulations 21 and 22 are the same as the regulations on these matters contained in the former English Regulations of 1919 (Schedule iii). The present English legislation contains similar provisions dealing with type aircraft,but amendments have been introduced so that the persons whose inspection reports may be accepted are authorised officers of the Air Ministry,and any person or firm whom the Secretary of State may appoint,authorise or -- -- recognise as qualified for the purpose. (Eng.Consolidated Order Sched.11 Par.2). Under this provision employees of a constructor of aircraft may be appointed,authorised or recognised as qualified. Even in the case of the first aircraft of any type,though the inspection of workmanship and materials is carried out by representatives of the Secretary of State,the inspection of all details and components of such aircraft is first carried out by the constructor,who has to provide adequate staff for this

purpose,and finally by the Secretary of State through his officials. (Eng.Air Navigation Directions,Para 19). In the case of subsequent aircraft of that type the whole inspection, including all such inspection as was carried out in the case of the first aircraft of that type by representatives of the Secretary of State,is carried out by the constructor's inspecting staff. The constructor has to satisfy the Secretary of State that his inspecting staff are such as to ensure that aircraft passed by them conform in all essential respects to the type aircraft. (Eng.A.N.Directions, Para.20) But when the constructor does not possess adequate facilities or adequate staff,or is for any reason unable to fulfill all or any of the requirements of Paragraphs 19 and 20,other arrangements may be sanctioned by the Secretary for State. (Eng.A.N.Directions Para.21).

Inspection for airworthiness

There is no similar provision in the Commonwealth -- Regulations. Under them the ordinary inspection of subsequent aircraft of any type appears to be confined to employees of the constructor. For the wording of Regulation 22 (1) is "any other aircraft ..... shall ..... be inspected for airworthiness by employees of the constructor licensed by the Minister for that purpose .....". Under Regulation 27, the Minister may upon such conditions as he thinks fit,grant to such competent persons as he thinks fit,licences to inspect aircraft for airworthiness.(*/) This Regulation is general in its wording,but for inspections under Reg.22 (1) it appears that the inspectors must not only be licensed under Article 27 but must also be employees of aircraft constructors. It is quite possible that an aircraft constructor may not have employees qualified to carry out inspections under Article 22. It is suggested that words "shall ....,be inspected" in that Article should be altered to "may ..... be inspected". This would not interfere with inspections by employees under Article 22,as at present,and where an aircraft constructor has no employee competent to carry out such inspections,or there is any other reason for so doing,the Minister could

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(*/) Cf. Eng.Consol.Order Schedule 2 Para.11

allow any person licensed under Article 27 to make -- -- inspections for the purposes of Article 22.

The English legislation for the testing of any inspection is similar to the Commonwealth legislation above stated (i.e. proviso to Reg.22) but this additional provision is worthy of note: the Secretary for State may, after the test inspection, refuse to accept for the purpose of certificates of -- -- airworthiness further reports furnished by the person or firm to whom the test inspection relates. (Eng. Consolidated Order Sch.11 Par. 2).

Passenger aircraft in the Commonwealth

Regulation 23 of the Commonwealth A.N.Regulations lays down certain conditions which must be complied with before a certificate of airworthiness will be issued in respect of any type of passenger aircraft. The Minister for Defence must approve of the design so far as regards safety and of the -- construction so far as regards workmanship and materials, and a demonstration, in accordance with the directions of and to the satisfaction of the Minister, that the aircraft is safe for the purpose for which it is intended, must be made in flying trials. No mention is made as to the provision of suitable instruments for safe navigation, which is one of the conditions contained in Annex B to the International Convention (Cf. Eng. Consolidated Order Sched.11 Par.5). Indeed it should be -- noted that the Aust.A.N.Regulations contain no reference at all to the instruments to be fitted on aircraft, though the Controller of Civ. Aviation has issued an Instruction -- -- (No:6/1931) forbidding the use of an aircraft for a cross-country flight (defined as one which takes the aircraft -- more than 20 miles from its usual Station) unless it is -- properly fitted with an approved compass in servicable -- condition and correctly swung. No doubt practically every aircraft has some instruments fitted, but as a safeguard, particularly in the case of passenger aircraft, insistence upon proper instruments being fitted is important. Moreover, not to insist thereon, would permit the infringement of the provisions of the International Convention. For it would

be possible for a visiting aircraft to fly in Australia, having complied with the Australian Regulations and yet not be fitted with instruments.

The detail on this matter contained in the English Legislation shows the attitude there regarding equipment. The A.N.Directions prescribe the instruments with which aircraft are to be fitted to enable them to obtain a -- certificate of airworthiness. (Para. 22). By Section 14 of the English Consolidated Order the Secretary for State is further empowered to prescribe what instruments and equipment shall be carried and maintained in working order when flying. Full particulars of the prescribed instruments and equipment are contained in Par. 59 of the Air Navigation Directions.

We have seen that one of the main conditions contained in Annex B to the International Convention governing the issue of certificates of airworthiness is that the design of the aircraft in regard to safety must conform to certain -- -- minimum requirements. Before a certificate of airworthiness is issued in our Commonwealth in respect of any type of -- passenger aircraft, the Minister of Defence must approve (inter alia) of the design so far as regards safety (Reg.23). Within the past few months for instance the design of the type of aircraft known as the "Puss" Moth has been ordered to be amended as regarding certain features which affect its -- safety. The Commonwealth Regulations contain no instructions as to the procedure for obtaining approval of designs. The English legislation contains a provision similar to the -- Commonwealth regulations just mentioned, but this applies to any type of aircraft not merely passenger aircraft. (See English Consol.Order Sched 11 Sect.5). Full details of the procedure for obtaining approval of design are contained in the English Air Nav.Directions, Section 11. As England at present is one of the foremost countries in the world in -- designing and manufacturing aircraft, and holds the lead as an

exporter of aircraft and all their component parts,it is -- advisable to pay some attention to the procedure adopted there.

Procedure in Great Britain for obtaining certificates of airworthiness

Two alternative methods are provided. The Secretary of State may for the purpose of issuing certificates of -- airworthiness accept reports in respect of the design of type aircraft from any person or firm he considers competent. The first method applies to type aircraft designed by persons or firms recognised by the Secretary of State as persons or firms from whom he is prepared to accept such reports. The second method applies to type aircraft designed by persons or firms not so recognised. Under the first method,the application for a certificate of airworthiness must be made when the design of the aircraft is at an early stage. The representatives of the Secretary of State must be allowed to examine all design data,calculations,reports on tests,and drawings,during the course of the design,and also the aircraft while it is under construction. They may,if they think it necessary,require further evidence as to the distribution of loads on the component parts of the aircraft or further tests as to strength. At any time prior to the issue of the certificate of airworthiness the Secretary of State may require any modifications to the aircraft which he considers necessary for safety. After the completion of the aircraft,and of its flying trials,the designer must furnish the Secretary of State with copies of design data,calculations, reports on tests,and drawings accompanied by a report and certificate thereon. Under the second method of procedure, an applicat ant must first apply for a certificate of -- airworthiness and then submit to the Airworthiness Department, general drawings of the proposed aircraft with such particulars as may be required to enable a preliminary opinion as to the general safety of the aircraft to be formed. Subsequently detailed drawings and particulars must be supplied. The applicant may be required to provide either satisfactory evidence as to the distribution of loads on the components of the aircraft,or a model of the aircraft suitable for

tests,in a wind channel,or working drawings and data to enable a model to be constructed for aerodynamic test. He may also have to supply the components and/or tests -- specimens necessary for strength tests to be made. Particulars and drawings of any proposed modifications must be submitted and approved. The Secretary of State can require any modifications he considers necessary,but the applicant,before carrying them out,must submit full drawings and particulars thereof to the Airworthiness Department for approval.

Maintenance of airworthy condition

To ensure that aircraft shall be maintained in airworthy condition the Commonwealth Regulations give the Minister of Defence power to direct that,at such times as he thinks fit, an aircraft shall be inspected,overhauled and certified as airworthy by persons appointed by the owner or user and licensed for the purpose under Reg:27 and any such certificate must be produced on demand. As a further safeguard any such aircraft may be inspected by a person authorised for that purpose by the Minister and if that person reports that the aircraft is unsafe the Minister may cancel the certificate of airworthiness or suspend it for such period as he thinks fit. (Reg.24. Cf Eng.Consol.Order Sch.11 Par.7)

Additional precautions are taken in the case of passenger aircraft. If any aircraft sustains major damage it is not to be used for the carriage of passengers until it has been inspected repaired and certified as airworthy by persons licensed under Regulation 27 to certify to such aircraft after overhaul. Immediately such certificate is issued it must be forwarded by the owner of the aircraft to the Controller of Civil Aviation (Reg.23A). Major damage in relation to an aircraft includes (1) fracture or buckling of a longeron or telescoping of the fuselage; (2) damage to a main spar of a wing or a centre section; (3) fracture or buckling of any structural member of the engine mounting or mountings or the under-carriage; and (4) failure of any main member of the tail unit or of any bracing or control assembly

or part thereof (Reg.3). Without the written consent of the Minister,no passenger aircraft carrying passengers is,on any day,allowed to proceed on any journey unless it has within 7 days previously been inspected by a competent person licensed for the purpose under Reg.27. If that person is satisfied that the aircraft is fit in every way for the proposed flight, he gives in duplicate a certificate to that effect. This certificate is countersigned by another person in the -- employment of the owner or by the pilot,and the time and date of certification must be shown thereon. The owner of the aircraft must retain one copy of such certificate while the duplicate copy must be carried in the aircraft (Reg.25). From the wording of Para (1) of this Regulation it appears that it has no application to a passenger aircraft being flown without passengers on board.

In fixing any such period as the above within which a passenger aircraft must have been inspected and certified as fit for flight,two conflicting points have to be taken into consideration. On the one hand,such inspections to be effective must be as frequent as possible,for owing to the comparative frailty of aircraft defects develop suddenly. On the other hand the trouble of arranging for and the expense attending such inspections must not be so great as to prohibit the maintenance of passenger services as commercial propositions.

In this respect the requirements of the Australian Regulations are very easy when contrasted with the English. Under the latter a passenger or goods aircraft flying for public service is not allowed to fly unless it has within 24 hours been inspected and certified as safe for flight. Further,if during such 24 hours the aircraft has landed owing to a defect which would not in ordinary aeronautical practice be remedied by the pilot or crew,after such defect has been remedied,the aircraft must be inspected and certified before it can be flown. But if after leaving the place where it was last certified,it has been accidentally

delayed otherwise than through such a defect (as has just been mentioned) it may proceed to any destination which but for this delay it would have reached within 24 hours of such certification. An aircraft actually in flight at the end of the 24 hours period is not required to land then to be re-inspected (Eng.Consolidated Order Sch.11 Par.8 (1)). Even when not plying for public hire a passenger or goods aircraft is not permitted to fly, unless, within the 24 hours next before it last left its ordinary station of operations, it has been inspected and certified as safe for flight. (Eng.Consolidated Order Sch 11 Par.8 (2)). These inspections must be carried out by competent persons licensed for the purpose and must be in accordance with the directions issued by the Secretary of State. If the result of the inspection is satisfactory the inspector gives a certificate in -- -- duplicate to that effect. (Eng.Consol.Order Sch 11 Par 8 (3) and (4)).

In addition to inspections by licensed persons, the Commonwealth Regulations require the pilot, before commencing any flight, to satisfy himself that the aircraft is in a fit condition for the flight and does not carry more than the load specified in the certificate of airworthiness; and he must sign in the journey log-book a certificate to that -- effect (Reg.26 (1)). Similar duties are laid on the pilot or other person in charge of the aircraft by corresponding English regulations but they are given in greater detail and include (in addition to the general duty of seeing that the aircraft is fit for the flight) satisfying himself that the aircraft is equipped with the prescribed instruments and equipment and that they are in every way fit for the -- proposed flight and that the view of the pilot is not interfered with by any part of the structure of the aircraft: and further that sufficient fuel, oil, and water are carried for the proposed trip (Eng.Consolidated Order Sc.11 Par(9)).

Under the Commonwealth Regulation 27 the Minister is empowered to license such competent persons as he thinks fit

to inspect aircraft for airworthiness and to issue certificates under Regulation 25. As a general precaution the Minister may cancel or suspend the certificate of airworthiness issued in respect of any aircraft if satisfied that reasonable doubt exists as to the safety of any aircraft or of the type to which any aircraft belongs. If satisfied that the grounds of suspension no longer exist he may remove any such -- -- suspension. (Reg.28)

Par.4 of Sch.11 of the Eng.Consolidated Order is worthy of note. It provides that if the Secretary of State has -- reason to believe that a passenger or goods aircraft within Great Britain is intended or is about to proceed on any -- flight while in a condition unfit for flight, he may take steps to have the aircraft detained so that it may be -- -- inspected and may further detain it until such alterations or repairs have been made as he considers necessary.

Application of Commonwealth Regulations relating to certificates of airworthiness

It will have been noted that some of the Regulations dealing with the certification of aircraft refer to aircraft generally, while others are limited to passenger aircraft. Regulation 23 which is the only one that indicates the requirements to be complied with before a certificate of airworthiness will be granted deals specifically and solely with passenger aircraft. The following Regulation 23 A deals with any aircraft which sustains major damage but only regarding its use thereafter for the carriage of passengers. Reg.24, relating to the periodical inspection and certification of aircraft, deals with aircraft generally. To decide whether the provisions of these Regulations apply to aircraft other than passenger aircraft, it is necessary to determine whether a certificate of airworthiness is required for aircraft other than passenger aircraft. The Regulations contain no definite statement on this point. As previously pointed out, the general rule is that no aircraft shall fly in the Commonwealth, unless registered in the prescribed manner, except for experiment or test or in accordance with

the directions (if any) of the Minister for Defence or in the case of personnel under instruction within the precincts of an aerodrome (Reg.6). It is only passenger aircraft that are by Reg.7 (a) (i) forbidden to fly unless certified in the prescribed manner as airworthy and unless the prescribed conditions as to airworthiness,periodical examination and overhaul are complied with and all the prescribed certificates in relation to airworthiness are carried in the aircraft. The Regulations contain no similar provisions dealing with goods or private aircraft,which seem to have been intentionally excluded,for Sub.Sect. (b) of that same Reg.7, which deals with the carriage of log books,refers expressly to passenger or goods aircraft,private aircraft again being omitted. It should also be noted that Reg.92 giving authorised persons right of access for the purpose of inspection to that portion of the workshops in which parts of an aircraft are being manufactured or assembled,and to drawings of the parts under inspection,limits that right definitely by the words "during the construction of a passenger aircraft". Were certificates of airworthiness required for all aircraft,there would be no such limitation.

As aircraft other than passenger aircraft can fly -- regardless of the conditions relating to airworthiness,it appears that the above stated provisions relating to -- airworthiness,periodical examination and overhaul have no application to them. Support for this view is found on referring to the Eng.Air Navigation Regulations of 1919. It will be seen that Sections 6 and 7 of the Commonwealth Regulations above referred to have been adopted almost -- word for word from Sections 1 and 2 of such English -- regulations,and that the Sections of Part IV Division 2 of the former Regulations,i.e.,those dealing with certificates of airworthiness,&c.,have been adopted similarly from Sch.111 of the latter Regulations,save that the word "Passenger" has recently been deleted from the Australian Reg.24 (1). The heading to such Sch.111is "Certificates of Airworthiness for

passenger aircraft and periodical overhaul and examination of such aircraft". Under these English regulations, for flight in Great Britain, only passenger carrying aircraft had to be certified as airworthy. (*1)

It might be contended that the Minister has power to exercise discretion as regards the registration of aircraft and could decline to register an aircraft which is not certified as airworthy; for the wording of Reg.16 (1) is "The Minister may grant.....". But it is submitted that this Regulation only empowers him to register when the conditions regarding registration which are stated in the Regulations are complied with. The attitude of the Department of Defence in this matter seems to be that all the conditions under which Registration certificates are issued are contained in the Air Navigation Regulations. Were it possible for the Minister to refuse registration on the ground that the aircraft is unairworthy, it would likewise be possible for him to refuse on any other ground he thought fit. If such were the case, the additional conditions to be complied with would be stated as portion of the Regulations or the Regulations would contain definite provisions giving the Minister power to fix any further conditions to be complied with before certificates of registration would be granted.

Under the Commonwealth Regulations, the registration of aircraft and the certification of aircraft as airworthy have no interdependence. The position seems to be similar in most other countries. Registration is purely for identification or police purposes, and seems to be effected in much the same way as motor registration.

So far as concerns flight in the Commonwealth, by aircraft registered in the Commonwealth, no breach of the International Convention is committed by not requiring all aircraft bo be certified as airworthy. But, for international flights, any aircraft registered in the Commonwealth would have to be so certified. As has already been pointed out, foreign aircraft other than passenger aircraft can comply with

(*1) See Spaight, Aircraft in Peace and the Law, page 40.

the Commonwealth Regulations without being certified as airworthy but the Commonwealth allows a breach of the International Convention by permitting their flight within the Commonwealth unless so certified. Even apart from this aspect of the matter,it seems desirable that the Australian Regulations should require every aircraft flying in the Commonwealth to be certified as airworthy,except in the cases of experiment or test already provided for. There appears to be no sound reason for confining this requirement to passenger aircraft alone. Indeed it is probable that in any case the owners of passenger aircraft would be more likely than the owners of private aircraft to see that such aircraft were airworthy and maintained in that condition. For the success of a passenger service depends largely upon freedom from accidents. While there is in the case of passenger aircraft the safety of an additional body of persons,namely the passengers,to be considered,in the case of all other aircraft there are three bodies of persons whose safety is concerned,namely the crew,those flying in other aircraft,and the general public on the earth. Of these by far the greatest number is the last mentioned body. So far as a private flyer is concerned,if he cares to take the risk of flying an aircraft that is not airworthy,his safety is his own concern. But if he does so,the risk to other flyers and the general public is correspondingly increased,whether they be willing to take such risk or not. It might be contended that to require every aircraft to be certified as airworthy would place an undesirable check on progress in flying. But the Regulations make ample provision for the exclusion of test and experimental flights from the operation of the provisions relating to certificates of airworthiness.

Certificates of airworthiness required under English legislation

The position in Great Britain was altered along these lines by the Eng.Consol.Order of 1923. It is laid down by Sec.3 (1) (ii) as one of the general conditions of flying that an aircraft shall not fly unless certified as airworthy in the prescribed manner,save in certain cases of experiment

or test. By Sect.4(v) of that same Order, an aircraft is not permitted to fly within Great Britain and Northern Ireland unless the prescribed conditions as to airworthiness are complied with and the prescribed certificates as to -- airworthiness are carried in the aircraft, save in certain cases of experiment or test. The conditions to be fulfilled before a certificate of airworthiness will be granted are contained in Sect.5 of Schedule 11. They apply to any type aircraft. That Section provides that a certificate of airworthiness will not be issued for any type aircraft until the following conditions have been -- fulfilled :- (1) the design has been approved by the -- Secretary of State in regard to safety, (2) the construction has been approved in regard to workmanship and material used, (3) the aircraft is fitted with the prescribed instruments and equipment, and (4) a satisfactory demonstration in -- accordance with the directions of the Secretary of State has been made in flying trials that the aircraft is safe for the purpose for which it is intended. (Cf. Commonwealth -- -- Regulation 23). The procedure governing the issue of certificates of airworthiness has already been discussed in relation to some of these conditions. Certain detailed requirements are given in the Airworthiness Handbook for Civil Aircraft, which is issued by the Air Ministry and is intended to supplement the Air Navigation Directions. Among these are the requirements relating to the flying trials for type aircraft under the Section 5 just referred to. These tests are carried out with the machine loaded in such a way that its total weight is equal to the maximum weight which will be permissible under its certificate of airworthiness, if it qualifies for it . Inter alia, land planes must be capable, on taking off from an aerodrome and being flown in a normal manner, of clearing an obstacle a certain height above the level of the aerodrome without covering more than a certain distance in a horizontal projection. This height

and distance varies according to the category in which the aircraft is classed and the purpose for which it is to be used, e.g. for goods, for passengers, for private purposes &c. Likewise, such planes must be able to pull up on landing in less than a prescribed distance.

Position in United States of America

In the United States of America, the Federal Government is the recognised leader in the regulating of air navigation. A number of the individual States have legislated upon the subject, but in most cases they require aircraft operating within their jurisdiction to hold Federal licences. Under the Federal Air Commerce Regulations aircraft engaged in interstate commercial operations must be licensed: but aircraft which are used for pleasure only, or for commercial flights within any one State do not have to be licensed. If the owners wish to licence such aircraft, the craft must comply with the airworthiness requirements laid down in the Air Commerce Regulations. All aircraft must carry identification marks. In the case of unlicensed aircraft, the identification marks consist of numbers only. Licensed aircraft, in addition to a number, have a prefixed letter or letters to indicate the type of licence of the aircraft. (*)

Recognition of certificates of airworthiness by other States

By Article 13 of the International Convention -- -- certificates of airworthiness issued or rendered valid by the State whose nationality the aircraft possesses, in accordance with the regulations established by Annex B and hereafter by the International Commission for Air Navigation, are to be recognised as valid by the other states.

The Commonwealth Regulation 5, in giving effect to this, requires that the certificate issued by the responsible authority in the country to which the foreign aircraft belongs must comply substantially with the provisions of the Commonwealth Regulations. Annex B of the International Convention as we have seen, provides that the main conditions governing the issue of certificates of airworthiness are that aircraft must satisfy certain minimum requirements in regard to design, demonstration of flying qualities, and --

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(*) See Scientific American of January 1932.

construction,and must be equipped with proper instruments. The minimum requirements are to be fixed by the International Commission for Air Navigation. Until they have been so fixed, each State is left to fix its own minimum requirements on these points and detail them in its regulations. Provided the Australian Regulations relating to certificates of airworthiness are based on the main conditions mentioned in such Annex,there can be no objection to the above mentioned requirements in Regulation 5. The Commonwealth is merely insisting upon the standard which it has fixed as the minimum for its own aircraft Presumably objections are only likely in the event of the foreign standard being below that fixed for the Commonwealth.

The English regulations merely require as a general condition of flight that an aircraft,other than a British aircraft registered in Great Britain and North Ireland,shall be certified as airworthy in the manner prescribed by the law of the State on whose register the aircraft is entered. (English Consolidated Order Sect.3 (1) (ii) and 3 (ii). See also Sect.4 (1) (i)). In another important manner the English authorities recognise certificates of airworthiness of other countries. When an aircraft is registered in Great Britain and a certificate of airworthiness which has been granted by the duly competent authority in any other part of His Majesty's Dominions or in any foreign state is in force at or immediately prior to the time of registration in Great Britain,the Secretary of State may,subject to such conditions and limitations and for such period as he thinks fit,confer on such certificate the same validity as if it had been granted under the English Consolidated Order. (English Consolidated Order Sch.11 Para.12).

Certificates of competency and licences for crew of aircraft

Article 12 of the International Convention provides that the commanding officer,pilots,engineers,and other members of the operating crew of every aircraft must,in accordance with Annex E,be provided with certificates of competency and licences issued or rendered valid by the State whose nationality the aircraft possesses. Annex E contains

contains the minimum qualifications necessary for obtaining certificates as pilots and navigators. Particulars are given of the tests for pilots of flying machines, balloons and airships. There are two classes of certificates for pilots of flying machines, namely (A) the Private Pilot's Flying Certificate which is not valid for purposes of public transport and (b) the Pilot's Flying Certificate for flying machines used for purposes of Public Transport. Not only are the practical tests for the latter more stringent than those for the former, but after passing them, candidates have to pass a techincal examination. Candidates for certificates as pilots of balloons and as airship officer pilots have to pass both practical and theoretical tests. Certificates for airship officer pilots are divided into three classes, first, second and third, which entitle the holders to command -- -- airships of various stated capacities, increasing with each certificate starting from the third class one. Aircraft used for public transport carrying more than ten passengers and having to make a continuous flight between two points more than 500 kilometres apart overland, or a night flight, or a flight between two points more than 200 kilometres apart over sea, are required to have a certificated navigator on board. Details of the theoretical and practical examination to be passed in order to qualify for same are given in the Annex. Before obtaining a licence as a pilot, navigator, or engineer of aircraft engaged in public transport, every candidate must pass a medical test based on the requirements of mental and physical fitness set out. To ensure the maintenance of efficiency, every aviator or aeronaut must be re-examined periodically, at least every six months. In case of illness or accident also, an aviator or aeronaut must be re-examined and pronounced fit before resuming air duties. Each contracting state may raise the conditions set out in the Annex, as it thinks fit, but these are to be maintained internationally as the minimum requirements.

The Commonwealth Regulations provide that no aircraft

shall fly within the limits of the Commonwealth or the -- territories or the territorial waters adjacent to the -- Commonwealth or the territories unless (inter alia) the -- personnel of the aircraft is licensed in the manner prescribed by the Regulations and there is carried in the aircraft (inter alia) the licence of every member of the personnel who is -- required by these Regulations to be licensed. Exemption from these two requirements is made under certain conditions within certain areas in the case of aircraft built for the purpose of experiment and flown for the purpose of experiment or tests only and in the case of personnel under instruction (Reg.6) Note that for the purposes of the Commonwealth Regulations the word "prescribed" means prescribed by those Regulations.

Licensing of personnel in the Commonwealth

Now, under the Commonwealth Regulations "personnel" in relation to any aircraft includes any pilot, commander, navigator or engineer or any operative member of the crew, but there is no definite statement in the Regulations as to what personnel the various classes of aircraft must carry. (Cf. Eng.A.N.Directions Schedule xi). The Regulations set out the requirements for licences for pilots (Regulations 30 and 31), navigators of passenger or goods aircraft (Regulation 32), and engineers on passenger or goods aircraft (Regulation 33). They further state that other licences may be granted in compliance with such conditions as the Minister of State for Defence thinks fit. A member of the personnel of an aircraft must produce his licence for inspection by any authorised person who demands it (Regulation 39). It is submitted that the effect of these sections is to make it necessary for any person who takes part in the work of -- operating an aircraft to hold a licence proving his -- -- qualifications to carry out his appointed work, if a licence is issued for that particular branch of the work.

This point is made clear in the English legislation. In the English Consolidated Order "personnel" in relation to an aircraft is defined in practically the same terms as in the Australian Regulations. But Schedule V to that Order provides

that every person acting as a commander,pilot,navigator, engineer or other operative member of the crew of a British aircraft registered in Great Britain and Northern Ireland shall be the holder of a licence in respect of the capacity in which he is so acting and in respect of the class or type of aircraft in which he is so acting,granted or rendered valid under the provisions of the English Order.

The general requirements for obtaining licences for pilots navigators and engineers contained in Part V of the Australian Regulations are supplemented by Instructions to Airmen (now No:4/1931) issued by the Department of Defence, and both Regulations and Instructions are based on Annex E of the International Convention. Pilots' licences for flying machines are issued in two categories,namely private pilots' licence, known as "A" licence,which is not valid for flying machines carrying passengers or goods for hire or reward,and a commercial pilot's licence known as "B" licence which is valid for that purpose. Further,pilots' licences are granted for such specific types of flying machines as applicants can produce evidence of their ability to fly,the types being specified in the form of licence. But on complying with the requirements set out in the Instructions to Airmen a pilot may have his licence made valid for a type of machine not already specified on his licence. (Article 8 of -- Instruction No:4/1931).

Applicants for a pilot's licence of either category are required to pass the practical tests in flying and the -- technical examinations which are detailed in the Instructions to Airmen,and must also pass medical examination by medical practitioners specially authorised by the Minister for Defence for the purpose (See Instructions to Airmen No:26/1931 and No:9/1932). There are four categories of medical -- -- examinations set out in these instructions and the medical practitioners are authorised to carry out examinations only of the categories for which they are authorised by the Minister for Defence. The categories are as follows:-

(1) medical examination for the issue of a commercial Pilot's licence ("B" licence) (2) medical examination for the renewal of a "B" licence (3) medical examination for the issue of a Private Pilot's licence "A" licence and (4) medical examination for the renewal of an "A" licence. The practical tests and technical examination for a "B" licence are more extensive than for an "A" licence (See Instructions No:4/1931). Further, while an "A" licence will not be issued to any person under the age of 17 years, for a "B" licence the age limit is over 19 years and under 45 years.

Licensing of pilots

In England

In addition to "A" and "B" licences, similar to those provided for in the Commonwealth, the English authorities have instituted what are called Master Pilot's Certificates, which will be issued either for flying machines or for marine flying machines. The qualifications required in order to obtain this licence are detailed in Section xiii of the Eng. Air Nav. Directions. The applicant must be the holder of a current "B" licence, and must have held that licence for at least five years, and during that time must have flown for at least 100 hours as pilot. His flying experience as a pilot must have included certain minimum periods on machines with certain prescribed engines and twenty cross country or oversea flights, each of a minimum duration and both commenced and completed at night. In addition he must be the holder of a current second class or first class licence to navigate aircraft issued under the English Consolidated Order. A master pilot's licence does not have to be renewed.

In the United States of America

In the United States of America pilots are licensed under the Federal Air Commerce Regulations in four grades: private, industrial, limited commercial, and transport. Private pilots may fly licensed aircraft but are not permitted to carry persons or property for hire: while industrial pilots are permitted to carry for hire property but not paying passengers. Limited commercial pilots are permitted to carry both passengers and property for hire but so far as paying passengers are concerned, they may only carry them

within the particular area for which they are licensed for passenger carrying. Transport pilots are free to carry passengers and property for hire in licensed aircraft without restriction as to the area of their operations. As in the Commonwealth, Pilots are only licensed to fly the particular clases of aircraft for which they have qualified. Transport pilots are the only ones allowed to act as flying instructors.(*)

Provisions to ensure continued fitness of licence holders

The Australian Regulations contain further provisions for ensuring that only fit persons shall hold licences and that they shall hold them only while they are fit.

Licences are issued under Part V of the Australian Regulations for a fixed term and must then be renewed to keep them valid. By Regulation 36 (1) a licence granted under Regulation 30 i.e., a pilot's licence for passenger or goods aircraft remains in force for a period of six months from the date of issue or renewal in the case of male pilots, and for four months in the case of female pilots. By Regulation 36 (2) all other licences granted under such Part V of the Regulations, i.e. private pilots licences, navigators licences, engineers licences, or a licence under Regulation 34, remain in force for a period of twelve months from the date of issue or renewal.

The periods of validity of licences under the English legislation are the same as under the Commonwealth Regulations, except in the case of a navigator's licence, which under the English rules is valid for not more than six months where the holder is of the male sex and not more than four months where the holder is of the female sex. (See English Air Nav. Directons Para.79). In addition to this difference it should be noted that, whereas the Commonwealth regulations fix a definite stated period of validity and do not appear to contemplate the issue of a licence for any period shorter than that prescribed, under the English legislation, a licence may be issued for the maximum period prescribed, or for any

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(*) See Scientific American of January 1932

shorter period,to be specified in the licence. (Eng.Con.Order Schedule V Sec.12).

The conditions on which renewal of Commonwealth licences will be granted are set out in Instructions to Airmen -- No:4/1931 (Cf.Eng.Air Nav.Directions 10 Par.87). An application for renewal must be submitted to the Controller of Civil Aviation and the applicant must undergo medical re-examination. A renewal will not be granted unless the applicant has performed at least three hours solo flying within the period of six months immediately preceding the date of his application for renewal. In case of doubt as to the maintenance of his competency,he must undergo all or any part of the practical tests for obtaining an "A" or "B" licence respectively(*1).

The holders of licences under Part V of the Commonwealth Regulations are required to undergo at such times as the -- Minister directs further medical examinations carried out under the control of the Minister (Reg.35)(*2). In the case of the holder of a "B" licence completing a total of 125 hours flying or more,within a period of less than thirty days, -- medical examination must be undergone forthwith (Instructions No:4/1931. Cf.Eng.Air Nav.Directions Par.89 (a)). Further, the Minister may,if he is satisfied that sufficient grounds have been shown or exist,cancel or suspend any licences issued to a member of the personnel of an aircraft. Any such suspension may be merely temporary and provisional,pending the holding of an enquiry,and the Minister may,if satisfied that the grounds of suspension no longer exist,remove any such suspension (Regulation 40)(*3). In addition to similar powers under the English Consolidated Order,the Secretary of State may require the holder of any licence,certificate,or other document granted or issued under that Order (or any person

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(*1) Cf.Par.12 A Sched.V Eng.Consol.Order and see Eng.Air Nav. Directions Pars.87,104(b) and 105(d).
(*2) Cf.Eng.Consol.Order Sched.V Par.11.
(*3) Cf.Eng.Consol.Order Sec.28 (1)

having the possession or custody of any such licence -- certificate or document) to surrender the same to him for cancellation,suspension,endorsement or variation,in accordance with the provisions of that Order: and any person failing to comply with any such requirement within a reasonable time shall be deemed to have failed to comply with that Order. (Eng.Consol.Order Sec.28 (4)).

Undoubtedly there are many difficulties in the way of complete enforcement of the foregoing safety provisions of the Commonwealth Regulations. Although provision is made by Regulation 39 for the inspection of licences,a considerable number of accidents have occurred in which members of the public have been killed or injured whilst being carried in aircraft piloted by persons either not licensed or whose licence did not permit their carrying passengers for hire or reward. The authorities have therefore issued special instructions relative to the carriage of passengers. No pilot is allowed to carry,or ply for the carriage of,passengers for hire or reward unless there is displayed in a prominent position on the aircraft an official certificate indicating that the pilot is in possession of a valid "B" pilot's licence. Aircraft owners have to make provision for a light metal frameto be affixed to the fuselage of the aircraft,in which this -- certificate is to be displayed. Above the frame a notice must be painted or displayed calling attention to the certificate. On cabin aircraft the frame is to be fitted on the side of the fuselage immediately at the rear of the doorway. In all cases the frame shall be affixedin such a position that the certificate contained therein is easily discernible and legible to intending passengers at all times. Should a pilot fail to observe these requirements,his licence will be suspended (Instructions to Airmen No:6/1931)

As already stated,licences are issued for periods fixed by the Regulations. But in the event of any licensed pilot being injured or becoming ill to such an extent that the services of a medical practitioner are sought or are necessary,

Injury to or illness of pilot

he is required to furnish forthwith to the Controller of Civil Aviation a report from a medical practitioner on the illness or injury and is forbidden to fly any aircraft until notified in writing that medical examination shows him to be medically fit. (Reg.36 A (1)). From the time of his injury or illness until receipt of such notice,his licence is suspended. (Reg.36A (2)). It is further provided by Instruction to Airmen No:19/1931 that if he is assessed as medically unfit as result of illness or accident,he will be notified accordingly and must at once return his licence. The responsibility of reporting his illness is thus thrown on the pilot. This seems the most practical way of dealing with such cases of illness or injury and though it is open to abuse from pilots' failures to report as ordered,it should prove much more effective than replying upon authorised inspectors to report such cases coming under their notice, particularly if failure by the pilot to report is punishable as a breach of the Air Nav.Regulations. There is one point worthy of consideration. Between the time of reporting his illness or injury and being certified as fit or otherwise by the Departmental Medical Assessor,the pilot retains his licence; although it is suspended. Should he,in breach of the Regulations do some flying,there is a possibility of escaping detection,since he has his licence to produce to any inspector. If he were compelled to forward his licence to the Controller with the medical practitioner's report, so that the licence would be out of his possession as well as suspended until returned with notification of his fitness, the possibility of detection by inspectors,being so much greater than when he retains his licence,might act as an additional means of securing the observance of the -- -- Instruction. In this connection should be noted Par.90 of the Eng.A.N.Directions which provides that the date and result of medical examination in consequence of illness or accident are to be recorded on the licence,in the case of a pilot licensed to fly aircraft carrying passengers or

goods for hire or reward or being flown for any industrial purpose or in the case of a navigator. These provisions of the Commonwealth Regulations affect pilots only. The holder of any other licence is not included. Undoubtedly in this respect the fitness of the pilot is of supreme importance, but there seems to be no good reason for not insisting upon an equal fitness in the other operative members of the crew: particularly as in most cases, it is passenger aircraft that carry navigators and engineers, and the safety of the passengers is thus involved.

Investigation of accidents

Special Regulations (No:118 of 1927) have been issued dealing with the Investigation of Accidents. These require accidents arising out of air navigation and involving death or serious injury to personnel or damage to aircraft, and forced landings, to be reported to the Controller of Civil Aviation, who reports to the Minister. The latter forwards each report to an Air Accidents Investigation Committee, which is set up by these Regulations. This Committee's duty is to investigate every accident reported to it, which it deems advisable to investigate, with a view to determining the cause of the accident and recommending to the Minister such action as the Committee consider should be taken to prevent a recurrence. For the purpose of investigating accidents the Committee has power to summon any person to attend and give evidence and to produce any books documents or writings in his custody and severe penalties may be inflicted for failure to attend as a witness, or refusing to be sworn, or to produce documents &c. (Regs 7,8,9 and 10) The Committee also is given right of access to any aircraft establishment, and of examinations of any aircraft, equipment or process in that establishment (Reg.11). The Committee may appoint some one - not necessarily one of its members - to conduct any investigation under these Regulations. On concluding his investigation the person so appointed forwards his written report to the Chairman of the Committee. No provision is made for the suspension of the licence of the pilot or any

other members of the personnel pending the finding of the Committee. If the pilot suffers any injury necessitating medical attention,he will come within the provisions of the Regulations and Instructions just discussed.(*/) But if he escapes uninjured the validity of his licence is not affected nor in any case is the validity of the licences of any others of the aircraft's personnel,unless the Minister acts under the general suspension provisions of Regulation 40.of the Air Navigation Regulations. It seems however that in practice no such action is considered until after the -- accident has been investigated. As usually some -- considerable time must elapse before this is completed,a licence holder who has been guilty of such conduct as to prove him unfitted to continue to hold such licence may -- continue flying after an accident,to the danger of other aircraft and the general public. It is suggested that in the case of accidents arising out of air navigation,a procedure,along the lines adopted in maritime circles,should be applied,and all licence holders involved in any accident to which the Air Navigation (Investigation of Accidents) -- Regulations apply,should be compelled to forward,with the report of the accident,their licences,which would be suspended until the Committee had enquired into the accident and -- decided whether such licences should be returned or cancelled.

Provisions similar to those in force in the Commonwealth have been made in Great Britain regarding the investigation of accidents under Sect.12 of the Air Navigation Act 1920,save that there an Inspector of Accidents,specially appointed,may hold a preliminary investigation. He reports to the -- Secretary of State and may include in his report a -- recommendation for the cancellation suspension or endorsement of any licence or certificate. If the Secretary of State considers it expedient,he may,whether or not a preliminary investigation has taken place,direct a formal investigation to be held. For this purpose the Secretary of State is

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(*/) See Page 109-110 Supra

empowered to appoint a competent person to hold the investigation,and may also appoint assessors to assist such person (*1).

In addition to the Air Accidents Investigation Committee set up by Statutory Rules No:118 of 1927,the Governor-General is,by the Air Navigation (Enquiry Committee) Regulations (Statutory Rules No:48 of 1929) given power, where special circumstances in his opinion make such course advisable,from time to time to appoint an Air Enquiry Committee of not less than three members (Reg.4). This Committee is to enquire into and report on any accident in relation to aircraft which is referred to it by the Governor-General (Reg.5). But it must be noted that these Regulations apply only in the case of aircraft engaged in aviation from one State or Territory to another State or Territory,and to aircraft engaged in aviation between Australia and any other country (Reg.3). The Air Accidents Investigation Committee may not investigate any accident which has been referred to an Air Enquiry Committee,unless special directions have been given by the Governor-General (Reg.6). For the purposes of these Air Navigation Enquiry Committee Regulations,an accident includes a forced landing, which is defined as meaning any landing,including landing on an aerodrome,made necessary through the failure or partial failure from any cause of any part of the aircraft,including engine,in flight,or through an insufficiency of fuel (Reg.2). This Committee is to conduct its enquiry in public,unless it is of opinion that any part of it should,in the public interest,be conducted in private (Reg.7). The Chairman is given power to summon witnesses to attend and give evidence and to produce books,documents,or writings in their custody. For the purpose of investigating accidents a Committee has the right of access to any aircraft establishment,and of examination of any aircraft equipment or process in that

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(*1) See Air Nav. (Investigation of Accidents) Regs. 1922 and amendments

establishment (Reg.15). Power is given to the Committee to authorize any of its members,or any person generally or specially appointed for the purpose by the Committee to conduct an investigation into any matter to which these Regulations apply.

Nationality requirement for Commonwealth licences

Regulations 38 of the Commonwealth Air Navigation Regulations provides that no pilot's,navigator's or engineer's licence shall be issued to any person who is not a British subject. This is much more stringent than the ownership qualifications prescribed by Regulation 17 in regard to the registration of aircraft. An alien though allowed to reside in Australia cannot obtain an Australian Licence as pilot,&c; although it appears he can register an aircraft of which he is the owner. Yet the result of the second proviso to Regulation 5 seems to be that a foreign aircraft may be flown in Australia without question so long as it carries certificates and licences issued by the responsible authority in the country to which the aircraft belongs,and which comply substantially with the Australian Regulations. An alien who registered his aircraft in an outside State must obtain his licence from that same State. So long as the same complies substantially with Australian requirements,he may keep and use his machine in this country without registering it here and free from any fulfilment of Australian requirements regarding re-registration &c. Of course,difficulties may arise from expiry of his registration and licences under the law of his own State but that State would probably not raise any objections to renewing his registration and licence. The chief difficulty for an alien residing in the Commonwealth would be to register his machine and obtain his licence in the first instance from the country of his nationality. Having overcome this difficulty,such an alien is less troubled by the Commonwealth Regulations than the ordinary Australian citizen of British nationality.

Article 13 of the International Convention provides that certificates of competency and licences issued or rendered valid by the State whose nationality the aircraft possesses in accordance with the regulations established by Annex B and Annex E shall be recognised as valid by other states: but each State has the right to refuse to recognize, for the purposes of flights within the limits of and above its own territory, certificates of competency and licences granted to one of its nationals by another contracting state.

The English Regulations require the personnel of an aircraft to be provided with certificates of competency and licences prescribed by the law of the State on whose register the aircraft is entered (Eng.Consol.Order Sec.3 (1) (iii) and Sec.3 (2)). They also provide that when a licence has been granted by the duly competent authority in any foreign state and is for the time being in force the Secretary for State may, subject to such conditions and limitations and for such period as he thinks fit, confer on such a licence the same validity for the purpose of flying British aircraft -- registered in Great Britain and Northern Ireland as if it had been granted under the English Consolidated Order (Sec.9 Sch.V of Eng.Consol Order). Thus the holder of such a licence is brought under the control of the English -- authorities. In the case of British subjects who are -- members of the crew of any aircraft flying in Great Britain English legislation requires, regardless of the nationality of such aircraft, that they should hold licences issued by the competent authority within His Majesty's Dominions.

Provisions regarding certificates of airworthiness and licences discussed

It is interesting to consider the various ideas underlying the provisions of the International Convention regarding certificates of airworthiness, and certificates of competency and licences, and to note how far effect has been given to the same in the Australian and English legislation.

It has already been noted that to enjoy the benefits of the International Convention aircraft must possess the nationality of one of the contracting States. This is

acquired by registration,and the Convention has adopted the general principle that a State shall only register aircraft owned by nationals of that State. This principle is expanded in Article 11 and 12 under which an aircraft must be provided with a certificate of airworthiness issued or rendered valid by the State whose nationality it possesses, and likewise the certificate of competency and licences of the crew of the aircraft must be issued or rendered valid by that same State. It seems only reasonable that the State which registers an aircraft should determine whether or not it is airworthy,for airworthiness should be a -- condition,if not of registration,at any rate of flight; and the State which registers an aircraft should be responsible to other States over which that aircraft flies,that such aircraft is airworthy. Likewise it seems reasonable that the State which grants its nationality to the aircraft should be responsible to other States over which the aircraft flies that its crew are competent.

But while the Convention requires the crew of any aircraft to hold certificates obtained from the country which registers the aircraft,it does not require that the crew should be nationals of that country. It is intended that all countries shall accept a certificate of licence issued by the country which registers the aircraft,to any member of the crew of that aircraft,so long as he continues to be a member of such crew. But if a member of the crew of one aircraft becomes a member of the crew of another aircraft of different nationality,for the purpose of international flights he must then obtain certificates of competency or licences from the latter State. Obviously such changes become impossible if States decide to grant certificates only to their own nationals: and the adoption of this -- principle would greatly minimise the benefits of the -- Convention. For it would give freedom in international air navigation only for aircraft possessing any particular nationality,owned by a person of,and manned by a crew of

the same nationality. If in the course of international flights,difficulties arise between the State of registration and a State over which the aircraft flies,complications may be introduced and other States involved if any members of the crew are nationals of those other States. It is therefore quite understandable that some States may not be willing to take the risk which the granting of certificates and licences to nationals of other States might entail. There is nothing in the Convention to prevent States from refusing their certificates to nationals of other States. For it is purely a domestic matter for each State to decide who is eligible to obtain certificates of competency issued by it. At the same time International Convention undoubtedly contemplates the issue by States of certificates of competency to members of crews of aircraft,registered by them,regardless of the nationality of such members. And it provides that certificates of competency and licences issued or rendered valid by the State whose nationality the aircraft possesses shall be recognised as valid by the other contracting States. But the reservation is made that each State has the right to refuse to recognise,for the purpose of flights within the limits of and above its own territory,certificates of competency and licences granted to one of its nationals by another contracting State. Thus,for example,if a person of German nationality is a member of the crew of an aircraft registered in France,he must hold a certificate of competency or licence issued by France,and while he is a member of the crew of that aircraft,that certificate is recognised as valid in any other State,save that for flights over German territory,Germany may refuse to recognise such certificate of competency or licence granted to the German by France.

Now under the Commonwealth regulations as we have seen, no pilot's,navigator's or engineer's licence is issued to any person who is not a British subject. This excludes aliens from obtaining any such licence in Australia. It gives an extensive preference to persons of British -- --

nationality regardless of their domicile. For there is nothing in the Australian Regulations to prevent a visitor of British nationality obtaining a Commonwealth licence and flying an aircraft registered in the Commonwealth,whereas an alien may not do that,even though he is a resident in Australia. Consequently,the second proviso to Regulation 5 of the -- Commonwealth Regulations results indirectly in persons of -- British nationality being favoured. Should a visiting -- aircraft not carry certificates licences and log books issued by the responsible authority in the country to which the -- aircraft belongs and complying substantially with the -- Commonwealth provisions,all the provisions of the Commonwealth Regulations are to apply to that aircraft. That is to say, to enable it to be flown in Australia it must be registered here and its crew must be licensed here. It is possible for an aircraft to come to Australia without being registered and without the crew being licensed and to register and obtain licences here,if that aircraft is owned and manned by British subjects provided of course they pass the Commonwealth requirements for licences. But if in a similar case the owner is not a British subject or person under His Majesty's protection,the aircraft cannot be registered in the -- Commonwealth and if the crew are not British subjects,they cannot obtain Commonwealth licences.

The English authorities do not question the standard of foreign certificates and licences as do the Commonwealth. For flight in Great Britain it is only necessary that an aircraft which is not registered in Great Britain,should be certified as airworthy by the State on whose register it is entered,and the crew if aliens,provided with certificates of competency issued by that same State. But such of the members of the personnel of such aircraft as are British subjects must have licences issued by a competent authority within His Majesty's Dominions. Yet aliens may obtain certificates and licences in Great Britain and thus be eligible to become members of crews of British aircraft and to fly British aircraft. The

adoption in the English legislation of the second paragraph of Article 13 of the International Convention has not been followed in Australia. But in England,where a licence has been granted by the competent authority in any part of His Majesty's Dominions outside Great Britain or in any foreign State,and is in force,the Secretary for State may,subject to such conditions and limitations and for such period as he shall think fit,confer on such licence the same validity for the purpose of flying British aircraft registered in Great Britain as if such licence had been granted under the Eng. Consolidated Order.(*1)

Value of certificates of airworthiness and licences discussed

Opinions differ considerably as to the merits of these two methods for ensuring safety in aerial navigation. Some authorities consider that certification of the aircraft is sufficient without further precautions. On the other hand it was contended in the early days of aviation that to require airdraft to be certified as airworthy would prove a serious obstacle to the progress of aviation,on the ground that the development of aircraft is very rapid while the difficulty of determining the standard of safety and the origin of flying accidents is very great. However in a number of early proposed rules regarding aerial navigation,certification of aircraft was recommended and was adopted by many States in their legislation. Other authorities consider certification of the crew sufficient. It is found that while some States require all the crew,others require only the pilot,to be certified as competent. Some States require both machine and pilot to be certified,but while others require this only where the machine carries passengers. It is obvious that -- certification of the crew of an aircraft is a simple matter and offers one of the easiest methods of doing something to ensure safety since it can be effectively enforced. On the other hand the effective certification of airworthiness of machines presents great difficulties and many doubt whether the results justify this means. But it must not be forgotten that

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(*1) See Eng.Consol.Order Sch V Para 9.

the general public on the earth are as much if not more entitled to consideration in this respect than crews or passengers in aircraft,who can at least choose whether they fly and take the risks attendant thereon. The people on the earth are subjected to risk whether they like it or not. So that if their safety is indirectly promoted by requiring the crews of aircraft to be qualified and their machine airworthy,it seems that both these precautions are justified from their point of view.

An interestering proposal has been made that -- certification of aircraft should be undertaken by a body similar to "Lloyd's" which would secure the sound construction and continued airworthiness of aircraft,and that the State is not the proper party to regulate and inspect machines. There are many difficulties to be faced in giving effect to such a scheme. In the first place a considerable time will be required to establish a Lloyd's Registry for aircraft,and in the meantime the public must be protected both in their -- capacity of passengers and in their normal earthly life. Again the question of cost seems an insuperable difficulty. An aircraft is after all comparatively fragile and very liable to injury. Unlike a ship,which ordinarily remains -- seaworthy for reasonably lengthy periods,an aircraft must be under constant supervision to be guaranteed as airworthy. From the commercial aspect the cost of such supervision as would be essential would prove prohibitive,for it would add considerably to the expense and consequently increase the premium the underwriter would have to charge for accepting risks.

Further provisions for ensuring safety

The safety of the crew and passengers of aircraft and of the citizens on earth is further promoted by numerous provisions dealing with flight. These are within the purely domestic sphere of each particular State and consequently a variety of provisions is found.

Division 2 of Part 11 of the Commonwealth Regulations

contains a number of provisions denoted "Conditions as to Safety". An aircraft may not fly over any city or town except at such an altitude as will enable it to land outside the city or town should the means of propulsion fail through any mechanical breakdown or other cause. (Reg.10). It should be noted that this deals only with landings occasioned by failure of the means of propulsion,not from structural defects or damage. This provision is not to apply to any area within a radius of a mile from the centre of a licensed aerodrome or of an Australian Air Force aerodrome or of an aerodrome under the control of the Minister for Defence. Presumably within such an area it is intended that an aircraft should land at such aerodrome in the event of engine failure. But Reg.10 (2) certainly does not say this.(*1) (Cf.Eng.Consol. Order Sec.9 (1)).

Trick flying or exhibition flying over any city or town area or populous district is forbidden (Reg.11 (a)) and it is also prohibited over any regatta,race meeting,or meeting for public games or sports,unless the consent in writing of the Minister for Defence is obtained (Reg.11 (b)). It is further provided by Reg.77 that an aircraft is not to engage in trick flying within a distance in any direction of less than 2000 yards from the nearest point of any licensed aerodrome. Nor may any person in an aircraft engage in any flying which by reason of low altitude or proximity to persons or buildings is dangerous to public safety (Reg.11 (c)).(*2) In July 1932 an aviator was fined in Melbourne for breach of this Regulation. He had flown across a football ground at South Melbourne during the progress of a match,and over the centre of the ground was only about 100 feet above such ground. Expert evidence was given that having regard to the fact that there was a large crowd at the ground,400 feet was the minimum altitude at which an aeroplane might safely

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(*1) As to this Commonwealth Regulation 10 see Page 53 supra.
(*2) Cf.Eng.Consol.Order Sec.9 (2) (a) (b) and (c)

fly over the ground if the possibility of engine trouble were precluded and 1000 feet if there was a probability of engine trouble.(*) The dropping of any article from an aircraft is forbidden unless in accordance with Regs.72 and 73 (Reg.11 (d)). Regulation 72 provides that a licence under Reg.73 must be obtained for dropping any article or any ballast (other than fine sand or water) from any aircraft in the air. The Minister has power to grant a licence to drop packages from aircraft on to dropping grounds approved by him (Reg.73 and Instruction to Airmen No:4 of 1930).(*2)

Some countries make provision as to smoking in aircraft. In some cases it is entirely prohibited,in others it is -- permitted to such extent as the owner of the aircraft -- indicates by notice exhibited in a prominent position in the aircraft. But in some of the British colonies the -- -- certificate of airworthiness governs the extent to which smoking may be permitted. In such cases the notice exhibited in the aircraft must comply with the certificate of -- -- airworthiness in regard to smoking.

The Eng.Consolidated Order prohibits any act,such as interference with the pilot or a member of the operative crew,or tampering with the aircraft or its equipment,or disorderly conduct,which is likely to imperil the safety of any aircraft,its passengers or crew (Eng. Consolidated Order Sect.9 (4)). It also contains provisions relating to -- drunkenness. Not only is a person acting as pilot, -- commander,navigator,engineer or operative member of the crew of an aircraft prohibited while so acting from being in a state of intoxication,or in a state in which by reason of his having taken or used any sedative,narotic,or stimulant drug or preparation,his capacity so to act is impaired: but if he is being carried in an aircraft for the purpose of acting in any of those positions,he may not be in such a state,while so carried. No other person while in a state

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(*) See "The Argus" of 21 July 1932
(*2) Cf. Eng.Consol.Order Sect.13 and Eng.Air Nav.Directions Sect. XV.

of intoxication is permitted to enter or be in any aircraft. (Eng.Consol.Order Sec.12). This last section in particular has much to commend it. Many of the countless motor accidents at the present day are caused by drivers who are under the influence of liquor. It does not require much imagination to picture the disasters for which drunkenness on the part of the pilot or others of the crew of an aircraft might be responsible.

Section 20 of the English Consolidated Order should be noted first as a provision for ensuring safety and secondly as an instance of a restriction on the freedom of citizens on the earth for the benefit of aviators. It provides that if any light is exhibited near an aerodrome or aerial -- lighthouse,so as to be liable to be mistaken for a light from the aerial lighthouse or for a prescribed light at an -- -- aerodrome,the Secretary of State may give notice to -- -- extinguish or effectually screen the light. The same applies if any light is exhibited and by reason of its liability to be mistaken for a light proceeding from an aerial lighthouse or for a prescribed light at an aerodrome is calculated to endanger the safety of aircraft. If the owner of the -- property where the light is exhibited or the person in -- charge of the light fails to comply with the notice,the -- Secretary for State is empowered to enter upon the place -- where the light is and extinguish the same,and to recover the expenses incurred by him in so doing. (Sec.20 Eng. Consolidated Order).

Question of providing parachutes for crew and passengers

In searching for means of ensuring safety in aerial navigation,attention seems to be drawn naturally to the possibility of providing crew and passengers with parachutes. Discussion of the laws relating to aircraft has shown that aircraft have been treated in some matters as being very similar to ships. The provision of life boats and life belts on sea-going ships is enforced. The parachute seems to correspond to these so far as air navigation is concerned. It appears that the authorities feel that commercial aviation

is only in the early stages of its development and to force aircraft to provide parachutes for passengers would convey such an impression of insecurity that the development of an "air-minded" public would be seriously retarded. Individual airmen have in numerous cases saved their lives by means of parachutes. It is of course a question for the technical expert to solve as to whether parachutes would enable the ordinary passenger to land safely in the event of a collision or other catastrophe in the air. But investigations in that direction are making definite advances. In addition to the simple expedient of providing each passenger and each member of the crew with a parachute foruse in case of accidents, consideration is being given to employing the parachute in somewhat different ways. Experiments have been conducted in bringing the aircraft itself to earth by means of a -- parachute without damaging the structure and without injuring the pilots. Some experts favour the idea of a detachable cabin and lowering that by means of a parachute rather than the whole machine. They claim that this would be the only way of saving passengers in the case of fire in mid-air, assuming of course that the fire did not break out in the cabin - a very remote contingency. In such cases the pilot and crew not in the detachable cabin would rely upon ordinary parachutes. A more recent idea involves the attaching of the parachute to the chair of each passenger. In case of need,the pilot controls mechanism which opens doors in the fuselage,swings the seat,with the passenger in it,clear of the aircraft,and then drops it. The parachute then comes into action and the passenger lands sitting in the same seat he occupied in the plane. While experts differ as to the most practical manner of development in these directions,they consider it only a matter of time before the law will give the air traveller the right to the protection of the parachute as it now gives a sailor the protection of a life belt at sea. (*)

(*) See Article in 1931 by L.Irwin in "Airways"

Wireless telegraphy and air navigation

A matter which has assumed great importance of recent years is the practicability of employing wireless telegraphy as a means of insuring greater safety in aviation. Its uses in this direction seem two fold, first as a means of enabling an aircraft to locate its position during the course of a flight, and secondly as a means of enabling advice of approaching weather conditions to be given to an aircraft in flight.

By the International Convention no wireless apparatus may be carried without a special licence issued by the State whose nationality the aircraft possesses. If wireless apparatus is carried, it is only to be used by members of the crew provided with a special licence for the purpose. But every aircraft used in public transport and capable of carrying ten or more persons is to be equipped with sending and receiving wireless apparatus when the methods of employing such apparatus are determined by the International Commission for Air Navigation. This Commission is also given power later to extend the obligation of carrying wireless apparatus to all other classes of aircraft on the conditions and according to the methods which it may decide upon. (Article 14). The International Commission has since determined that aircraft shall use only telegraphy for their communications, but radio telephony may be used for ensuring the safety of aircraft. Every aircraft engaged in International navigation must, if it is equipped with wireless, be provided with the special licence prescribed by Article 14 (Article 19 (g)).

The Commonwealth Air Navigation Regulations contain no provisions at all regarding wireless apparatus on aircraft: but the possibility of employing wireless for keeping aircraft on their course and acquainted with their position at any time during flight has received much consideration particularly in the last two years. The Commonwealth authorities evidently contemplate that some aircraft may be fitted with wireless apparatus. For Instruction to Airmen No:11/1931, dealing

with emergency communication between aircraft and ships, speaks of the methods of attracting attention of ships to be employed if an aircraft cannot communicate by wireless telegraphy.

Under the English Consolidated Order the Secretary of State is empowered to prescribe the conditions in which British aircraft shall,when flying,carry wireless telegraphy apparatus and carry certified operators and maintain wireless telegraphy service. When any such directions have been given,they must be complied with,in the case of any aircraft to which they apply,as if contained in the Consolidated Order (Sec.14A). In accordance with this power,directions have been issued giving effect to Article 14 of the -- International Convention. Further directions are being issued regulating the use of apparatus for wireless -- telegraphy and dealing with the nature of the apparatus to be carried and the issue of certificates and licences to operators,and regulations as to operators and conditions of working and inspection of apparatus,and as to wireless ground engineers.

Aerodromes

The establishment and control of aerodromes is a matter for the legislature of the particular country in which they are situated. The International Convention is mainly concerned that every aerodrome in a contracting State which upon payment of charges is open to public use by its national aircraft,shall likewise be open to the aircraft of all the other contracting States. In every such aerodrome there is to be a single tariff of charges for landing and length of stay,applicable alike to national and foreign aircraft (Article 24).

Under the Australian Regulations an aerodrome or place used regularly for landing or departure by passenger aircraft carrying passengers must be licensed for that purpose by the Minister. This provision does not apply to Australian Air Force aerodromes or aerodromes under the control of the Minister so long as the Minister's directions as to the use

of such aerodromes are complied with (Reg.13 (1) and (3)). The granting of a licence to the proprietor of an aerodrome is in the discretion of the Minister,who may cancel or suspend any such licence,if satisfied that sufficient grounds exist, and may remove such suspension,if satisfied that the grounds for suspension no longer exist (Reg.14). The proprietor of an aerodrome must exhibit in a conspicuous place on the -- aerodrome a tariff of charges for landings and length of stay in accordance with such form and scale as the Minister directs or approves (Reg.15). All aircraft belonging to,or employed in the service of,His Majesty are to have access at all times to any licensed aerodrome (Reg.93),but the Regulations contain no reference to the use of aerodromes by foreign aircraft. The Proprietor of an aerodrome must display on the aerodrome certain flags by day and lights by night to indicate the directions for circuits of aerodromes (Reg.74 and see also instruction to Airmen No:2/1932). The Civil Aviation -- Department has issued a pamphlet on the selection and -- establishment of landing grounds for aircraft.

The English Consolidated Order,in addition to provisions similar to those in the Commonwealth Regulations 13 (1) and 15,contains provisions giving effect to Article 24 of the International Convention.

Most of the provisions relating to aerodromes and the manner of their use by aircraft must of necessity be of a technical nature. From the legal aspect,attention is -- particularly directed to some of the proposals which are being put forward at the present time with a view to making airports safer. In their notes on the "Selection and Establishment of Landing Grounds for Aircraft", the Commonwealth Civil Aviation Branch point out that an -- aerodrome to serve a given area or town should be located at the shortest possible distance from the centre of the town or area to be served,for the advantage of easy and quick communication with the town or area is one of the most important considerations. At the same time the --

site should not be surrounded by high buildings or trees, nor should roads traverse an aerodrome,and localities where electrical transmission lines or telephone lines would be adjacent to the site should be avoided.

It is obvious that in many of the large cities, it would be very difficulty not only to secure a site for an aerodrome,but to purchase sufficient land around a site to give aircraft such freedom from obstructions as to render it safe for use as an aerodrome. Frequently the expense would be so great as to render the undertaking financially -- -- impossible,at any rate as a commercial proposition.

The Civil Aviation Section of the London Chamber of Commerce has put forward suggestions which they desire to be introduced into the Eng. legislation on the matter. These aim at restricting the height of buildings of any kind -- within a certain distance of an aerodrome. They propose that within a mile of any aerodrome a building higher than a fifteenth part of its distance from the perimeter of the landing ground should be regarded as an obstacle and should not be allowed. Thus at two hundred yards from the boundary of a landing ground,40 feet would be the maximum height for a building. In support of these suggestions it is urged that the growth of aviation and its increasing importance as a method of transport render action along these lines necessary: and even when technical improvements in machines enable them to ascend or descend much more steeply than the majority of present-day aircraft,there will still be need for plenty of air-space round every busy landing ground. These proposals indicate the growing importance of aviation, and the restrictions to which the ordinary landholder is likely to be subjected in the interests of aviation.

Rules as to lights, signals, etc., and Rules for air traffic

By Article 25 of the International Convention each contracting State undertakes to adopt measures to ensure that every aircraft flying above the limits of the State's territory,and that every aircraft,wherever it may be,carrying its nationality mark,shall comply with the regulations --

contained in Annex D. Each of the contracting States undertakes to ensure the prosecution and punishment of all persons contravening these regulations. Annex D. is -- divided into six Sections. Section 1 contains rules as to lights to be carried by aircraft,Section 2 rules as to signals by and to aircraft,Section 3 general rules for air traffic,Section 4 a rule prohibiting the dropping of ballast, other than fine sand or water,from aircraft in the air, -- Section 5 special rules for air traffic on and in the -- vicinity of aerodromes,and Section 6 a few general rules. Regulations 46 to 89,forming Parts VIII and IX of the -- Commonwealth Regulations,give effect to practically all the rules contained in Annex D. Notable omissions from the Commonwealth Regulations are the signals to warn an aircraft that it is in the vicinity of a prohibited area and should change its course,and the signals requiring an aircraft to land,which are set out in Paragraphs 18 and 19 of Annex D, Rules in accordance with Annex D are contained in Schedule IV to the Eng.Consolidated Order. Where an aircraft flies in contravention of,or fails to comply with,any of the -- Commonwealth Regulations,the owner,commander,and pilot are to be deemed to have contravened or failed to comply with these Regulations (Reg.96 (1)). This constitutes an -- offence against the Regulations,the punishment for which is a fine not exceeding £200- or imprisonment for any term not exceeding six months,or both (Reg.96 (3) and (4). It is a good defence to any proceedings for the commission of an offence against the Regulations if the commission is proved to have been due to stress of weather or other unavoidable cause (Reg.96 (5).

When an aircraft in the air develops an imperfection which renders it incapable of further flight,the machine must come down to earth,wherever it is,to its own danger and to the danger of its occupants and of the people and property beneath it. It is of vital importance to the citizen on earth to know his position regarding damage that

Damage to other persons property caused by aviators

may be caused to himself or his property by aircraft in this way. This is peculiarly a matter for the legislature of each particular State. The citizens as inhabitants of any State must know their position in relation to aviators of that same State.. Should the damage be caused by a -- foreign aviator,it then becomes a matter between subjects of two States. States are not disposed to allow -- -- interference with their own laws when their citizens or property within their territory suffer damage,even though the aviator causing such damage may be a foreigner. Hence to make provisions for such matters in an International Convention would be extremely difficult. At the same time it is very desirable that the laws of all states in dealing with damages caused by aviators to persons and property on the earth should work on the same broad principles,and that some agreement should be reached between States as to the general principles to be applied on this matter.

The International Convention is silent on this subject. The only reference to the matter in the Commonwealth -- Regulations is contained in Reg.97 which provides that -- nothing in the Regulations is to be construed as prejudicing the rights or remedies of any person in respect of any injury to persons or property caused by any aircraft. Therefore, so far as the Commonwealth is concerned,the ordinary rules of law relating to damage apply. The general principle is that if in the prosecution of a lawful act a casualty purely accidental arises,no action can be supported for an injury arising from such an accident. In the United States of America this principle was accepted by the Supreme Court of Massachusetts in the well-known case Brown v Kendall (1850) which was approved by the Supreme Court of the United States in the Nitro-Glycerine case (1872). There seems to have been some uncertainty on the matter in English courts until the case of Holmes v Mather.(*/) In that case,while the --

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(*/) 44 L.J. 176 (1875)

defendant was being driven by his groom,his horses were startled by a dog and ran away. The groom was unable to stop them but guided them as best he could until,in trying to turn a corner,they knocked down the plaintiff. The jury found there was no negligence. It was argued that as the driver was acting in trying to turn the horses round the corner,a trespass had been committed. The Court refused to take this view. The result was that the plaintiff, though quite free from any blame himself and merely the unfortunate victim of an accident,could not obtain redress. By 1891,we find the Court holding in Stanley v Powell (*1), on the English authorities alone,that where negligence is negatived an action does not lie for injury resulting by accident from another's lawful act. This decision is accepted law.

But so far as aircraft are concerned the question is peculiarly involved with the matter of trespass. In the Commonwealth,as has been noted earlier,no provision has been made to limit the rights of landowners in the air-space above their land,with the result that every flight over another person's property is technically a trespass. But it is realised that the effect of the maxim "cuis est solum eius est usque ad coelum" must be restricted so that flight at a reasonable height above the earth will not render aviators liable in trespass. This will not affect their liability in the case of flight at a height less than may be fixed or may be considered reasonable in any particular circumstances.

In 1822 in the State of New York,the case of Guille v Swan was decided. Guille has gone up in a balloon and came down in Swan's garden. A crowd of people,attracted by the balloon's descent,broke into the garden and trod down the vegetables and flowers. The Court held that Guille was

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(*1) 60 L.J.Q.B. 52

liable as a trespasser not only for the damage done by the balloon itself but also for that done by the crowd. Spencer, the Chief Justice,said: "If his descent under such -- -- circumstances would ordinarily and naturally draw a crowd of people about him,either from curiosity or for the purpose of rescuing him from a perilous situation,all this he ought to have foreseen and must be responsible for."

Now as Pollock points out (*1) ,"the trespass was not in the common sense wilful: Guille certainly did not mean to come down in Swan's garden,which he did,in fact,with some danger to himself. But a man who goes up in a balloon must know that he has to come down somewhere,and that he cannot be sure of coming down in a place which he is entitled to use for that purpose,or where his descent will cause no damage and excite no objection. Guile's liability was accordingly the same as if the balloon had been under his control,and he had guided it into Swan's garden".

In the earlier stages of the development of aircraft the same principle might well have applied to them. But it is very questionable whether in the absence of negligence on the part of the aviator this decision would be applied to modern aircraft,other than balloons. For aircraft have now developed into a recognised system of regular transport, running with the same regularity as steamers,trains,and motor cars,on established routes and to time table, and with fixed landing stations. Likewise it does not seem that the principle laid down in Rylands v Fletcher would be applied and aircraft treated as being so dangerous that aviators are bound to use consummate care and keep them at their peril from causing damage to other persons or their property. If it were,the authorities would hardly be justified in -- recognizing them in the manner they do by registering them and certifying passenger aircraft as fit for transporting

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(*1) Law of Torts: 13th Edit. at p.41

passengers.

Damage resulting from mishap to aircraft

Assuming our Commonwealth law is modified so that the flight of aircraft at a reasonable height is not actionable as trespass,what will be the position of aircraft,which,while flying at or above such height,meet with a mishap and fall to earth out of control? As they near the earth,they enter air space through which their passage,if in the ordinary course of flight,would undoubtedly render the aviator liable in trespass. Any unauthorized interference however slight,with the possession of land,by means of a voluntary act,constitutes a trespass. In the course of his judgment in Stanley v Powell (*1) ,Denman J. referred to the old case Weaver v Ward (1617) and stated that what it really lays down is that no man shall be excused of a trespass except it may be judged entirely without his fault. In the case of Mitten v Faudrye (1626) (*2) , Dodderidge J. laid it down that where a man is driving goods through a town and one of them goes into another man's house and he follows him,trespass does not lie for this,because it was involuntary and a trespass ought to be done voluntarily. In Wakeman v Robinson (1823) (*3) the defendant was driving a horse,which,being frightened by a sudden noise,became unmanageable and injured the Plaintiff's horse. The Court laid it down that if the accident happened entirely without default on the part of the defendant,or blame imputable to him,no action would lie. In the course of his judgment in Holmes v Mather (*4) ,Baron Bramwell said: "One observation more as to the cases cited. They appear to be for the most part decisions on the form of action,viz. whether case or trespass was proper. And the result of them,which is intelligible enough,seems to be that if the act complained of is one of immediate force,vi et armis,

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(*1) Supra p.130
(*2) 79 Eng. Reports 1259
(*3) 25 R.R. 618
(*4) Supra p.129-130

trespass is the proper remedy,should there be any remedy: and there is a remedy if the act is wilful or the result of negligence,but where it is not wrongful for either of these reasons (although if it were,trespass would be the right form of action) no action is maintainable because the act is not actionable. In Stanley v Powell (*1) ,the question to be decided was whether the fact that there was no negligence on the part of the defendant constituted an excuse for the trespass to the plaintiff by the shot which was fired by the defendant and injured the plaintiff. Denman J. found that while the plaintiff claimed the injury was due to the defendant's negligence,there was no pretence for saying it was intentional. The jury found that the defendant had not been negligent and the Court decided in the defendant's favour. This decision has been accepted as authoritative on this question.

It is apparent that liability for damage done by aviators to persons or property on the earth depends on proof of negligence or other fault on the part of the person who caused the damage. It will at once be evident that to obtain proof of negligence will be an insuperable difficulty in most cases for the citizen on earth,who brings an action for damages for injury to himself or his property. For in the majority of cases a person on the earth is not in a position to see what went wrong with an aircraft,and caused injury or loss to himself. The aviator or those in control of the aircraft are frequently the only ones who can give any information as to what caused the mishap. Even if the evidence of spectators is sufficient to indicate,possibly beyond doubt,the cause of the accident,in many cases it will still be impossible to determine from such evidence whether or not the aviator did all that a skilful person could reasonably be required to do in such a case.

The view that the law should remain unaltered and aviators be held liable only on proof of negligence seems to

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(*1) Supra p.130

Advisability of making aviators absolutely liable for all damage

obtain support mainly on the ground that it is undesirable to place any more than ordinary liability on aerial navigation, as it might prove detrimental to its development. On the other hand,it is contended that aerial navigation will ultimately profit if aviators are made liable for all injury they cause,even if accidental. Such absolute liability would prove an additional inducement to aviators to develop greater safety in aircraft. At the same time,they would probably insure against their liability,and it is obviously much more practicable,as well as equitable,to place the burden of insuring on the aviators,who create the risk and are only a limited body,rather than on the general population as a whole. Further it seems equitable that the aviator who has the advantage of flying should make good any loss arising therefrom to the ordinary citizen who must accept the risks,whether he wishes to do so or not,and is so -- situated that to prove negiligence on the part of the aviator would in most cases be a practical impossibility. Of course it is possible that the aviators liability may in some -- instances be affected by contributory negligence on the part of the person injured.

This absolute liability of aviators for third party damage is being embodied in the legislation of many States and such legislation,it is submitted,is desirable in the Commonwealth. Sec.9 (1) of the Eng.Air Navigation Act 1920, after dealing with trespass and nuisance,provides that where material damage or loss is caused by an aircraft in flight, taking off,or landing,or by any person in any such aircraft, or by any article falling from any such aircraft,to any person or property on land or water,damages shall be -- recoverable from the owner of the aircraft in respect of such damage or loss,without proof of negligence or intention or other cause of action,as though the same had been caused by his wilful act,neglect or default,except where the damage or loss was caused by or contributed to by the negligence of

the person by whom the same was suffered. It will be noted that the person suffering the damage or loss is relieved from proving negligence on the part of the aviator,but if he himself caused or contributed to the loss or damage,the ordinary -- principles of law will come into operation and his contributory negligence may prevent him from recovering damages. The Section 9 (1) contains a proviso that,where any damages -- recovered from or paid by the owner of an aircraft under that section arose from damage or loss caused solely by the wrongful or negligent action or omission of any person other than the owner or some person in his employment,the owner shall be entitled to recover from that person the amount of such damages,and in any such proceedings against the owner the owner may,on making such application to the court and on giving such undertaking in costs as may be prescribed by rules of court,join any such person as aforesaid as defendant, but where such person is not so joined he shall not in any subsequent proceedings taken against him by the owner be precluded from disputing the reasonableness of any damages recovered from or paid by the owner. There is also a proviso that where any aircraft has been bona fide hired out for a period exceeding fourteen days to any person by the owner thereof,and no pilot,commander,navigator,or operative member of the crew of the aircraft is in the employment of the owner, the section shall have effect as though for references to the owner there was substituted references to the person to whom the aircraft has been so hired out. These provisions serve to ease the absolute liability of the owner. Few owners of aircraft could afford to hire them out,without some -- -- protection from the responsibility for damage done by the hirer while using the aircraft.

Methods of ensuring payment for damage

While it is desirable that legislative provision should make aviators absolutely liable for damage to other persons or property,it is also desirable that provision should be made for ensuring that the amount of damages shall be -- forthcoming from the party liable. It seems likely that

with the increasing interest now being taken in aviaton, the number of aircraft will increase very rapidly,and the cost of same will be reduced so that persons of limited means can purchase them. Probably aircraft will be sold on the hire purchase system,which has become so usual in the case of motor vehicles. And as in the case of motor vehciles,this will result in many aircraft being used by persons without means sufficient to satisfy damages for which they may become liable.

The method of overcoming this difficulty which most readily suggests itself is compulsory insurance against damage to third persons and property. This has been adopted in some parts of the world in the case of motor vehicles,but in the Commonwealth there has been much opposition to its introduction. It is contended that compulsory insurance merely looks after the monetary side of claims by injured third parties,by protecting them from pecuniary loss,whereas the true test of any motor traffic law should be whether the provisions safeguard life,limb and property. In the motor world,much support has been forthcoming for what is called in America the Safety Financial Responsibility Law,as opposed to the straight out compulsory insurance. It is quite probable that a similar scheme may be advocated for aircraft and it is therefore desirable to consider the principles on which this law operates in the case of motor cars.

The Safety Financial Responsibility Law includes a form of compulsory insurance but it is based on the idea of using compulsion in a way that will be more reasonable and will make the legislation less oppressive. Its advocates claim that in addition to protecting third parties,it makes an important contribution to the public safety. It -- provides that where judgment has been given against a motor driver for injury caused to a third party or property,his licence is suspended until such judgment has been satisfied and a guarantee of future financial responsibility (usually

in the form of an insurance policy) has been established. The usual guarantee of financial responsibility required in those American States which have adopted this Law is at least £2000- for damages by reason of personal injury to or death of two or more persons in any one accident (subject to a limit of £1000- for each person injured or killed) and at least £200- for damage to property resulting from any one accident. It is submitted that this latter amount would need to be increased in the case of aircraft since they would,in many cases,be likely to cause far greater damage to property than motor cars would. If the driver against whom judgment is given cannot pay in full,he may be allowed to pay by instalments and his licence is then restored -- provided the payments of instalments do not fall into arrears and an insurance policy (or other financial guarantee) to cover future accidents is produced. It is usual to provide in the ordinary traffic regulations that no licence shall be issued to any person whose right to drive is at the time suspended in any other State.

It will be seen that these provisions do not guarantee that an amount awarded by a judgment will be paid,but the prospect of permanent expulsion from motoring is regarded as sufficient to secure that the number of judgments unpaid will be negligible.

In addition to the provisions stated,it is frequently provided that on conviction for any major traffic offence, e.g. reckless driving,driving to the danger of the public, or driving while under the influence of liquor,a motorist must produce evidence of financial responsibility otherwise his licence is suspended until such evidence is produced.

In 1930 a uniform Safety Financial Responsibility Law was in operation in fifteen States of the United States of America,while in Massachusetts compulsory insurance -- -- legislation had been introduced. A Royal Commission -- appointed in Ontario,Canada,after investigation recommended in March 1930 that Ontario should adopt the Safety Financial

Responsibility Law in preference to compulsory insurance. Their investigations covered the compulsory insurance laws operating in England in New Zealand. They found that in Massachusetts where compulsory insurance operated accidents had increased and the cost of insurance had increased and was likely to become prohibitive on account of the companies having no effective means of refusing applicants who were poor drivers but having to accept every risk. As a result of unreasonable claims and the large and increasing number of false claims, the loss cost had become very high. The opinion was expressed before this Royal Commission that compelling everyone to insure makes them less careful in driving for everyone knows that all other drivers are insured and that in case of accident the insurance company, and not the person causing the injury, will have to pay. In 1929 a Joint Legislative Committee of the Senate and Assembly of California made an exhaustive survey of laws of this nature and reported in favour of the Safety -- Financial Responsibility Law as being much in advance of other laws.

However, the latest reports on the question seem to indicate very definitely that the Safety Financial Laws are far from satisfactory in operation. A commission under the chairmanship of the Under Secretary of the Treasury has been investigating the matter of automobile third party insurance and compensation for automobile accidents in the United States of America. In their report, which has recently been issued, they state that in spite of the laws now in operation in many States of the United States of America only 17.3 per cent of the owners of cars and trucks registered in the United States of America were found to be covered by liability insurance. Their conclusion is that so far as the protection of the public is concerned, financial responsibility laws have not had much effect. And in the case of aircraft, the danger, at any rate to property, is far greater than in the case of automobiles:

consequently property owners require greater protection against damage by aircraft. On the other hand, the Commission consider the compulsory insurance plan operating in Massachusetts and in Great Britain gives much better -- protection than any other system at present in force. They found that there were no grounds for the belief that such insurance made drivers less careful because they were covered against personal liability. This Commission advocates a new plan similar to the Workers Compensation Act with limited liability and without regard to fault.

It is worthy of note that under the New Zealand scheme of compulsory insurance, the motor vehicle and not the -- driver is covered to the extent of £2000- in the event of judgment being given to a third party as the outcome of - the vehicle being involved in an accident. In a similar manner, covering an aircraft rather than the owner, would render unnecessary the provisions of the English legislation for relieving the owner of liability when the aircraft is -- hired out: and this might prove more satisfactory in its practical application.

Damage caused by foreign aircraft

Further complications in regard to ensuring indemnificatio for injury or damage to property will arise where such -- -- injury or damage is caused for a foreign machine. It was laid down by the Judicial Committee of the Privy -- -- Council in the case of Sirdar Gurdyal Singh v The Rajah of Faridkote,(*1) that in all personal actions the courts of the country in which the Defendant resides and not the courts of the country where the cause of action arose should be -- resorted to: a plaintiff must sue in the Court to which -- the defendant is subject at the time of the suit, actor -- sequitur forum rei; which was rightly stated by Phillimore "to lie at the root of all international, and of most -- -- domestic jurisprudence in this matter".(*2) Territorial jurisdiction exists as to land within theterritory and -- may be exercised over movables within the territory; while in questions of status or succession, governed by domicile,

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(*1) 1894 A.C. 670
(*2) Int.Law iv S.891

it might exist as to all persons domiciled or who,when living,were domiciled within the territory. In a personal action,to which none of these causes of jurisdiction applied, a decree pronounced in absentia by a foreign court,to the jurisdiction of which the defendant had not in any way submitted himself,was therefore an absolute nullity. Now the person who has suffered damage may find insurmountable difficulties in ascertaining the persons responsible for the damage and tracing them to their State,and taking action against them before a foreign court under foreign laws; and even if the foreign judgment is in his favour there will be further difficulties,and frequently little or no success in obtaining execution of that judgment after he has obtained it. It is therefore interesting to survey some of the proposals which have been submitted for -- -- facilitating the recovery of damages in such cases (*1).

Proposed methods for recovering damages from foreign aviators

One proposal was that the Courts of the State in which the damage was done should be allowed to adjudicate on claims for damages and should apply the laws of that State,and that the laws of the country of the aircraft's nationality should not apply even though they differed. If judgment were given against the aircraft's owner,the Government of the country of the aircraft's nationality should undertake to execute that judgment. It will be seen that this proposal is directly opposed to the recognized principles of international law stated above.

Under another suggested scheme for dealing with such cases,no aircraft will be allowed to make a flight until it has been registered,and one of the conditions of registration will be that the proprietor must be enrolled as a member of an aeronautical society. Every Society in a State will levy subscriptions from its members so that indemnity and insurance funds will be established in that State. All the Societies of each state will form an association and will work in conjunction with similar associations in other --

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(*1) See generally Spaight "Aircraft in Peace and the Law Chap. VI.

States and will apportion the charges for damages among all the associations,in one central office for the world. So far as concerns the persons who suffer damage from some act connected with an aviator's flight,the associations in each State will be made responsible in damages. The person who has suffered damage will thus be relieved of the necessity of taking action against the owner of the aircraft which caused the damage. He will simply make a claim through the local aeronautical society: and for such purpose does not even have to prove what aircraft caused the damage. The only thing he must prove is the amount of the damage and that it was due solely to an aircraft: and these need be established only in the Courts of the country where the damage was done. His claim will then be paid by the aeronautical association of that country. That -- association will then ascertain what aircraft was -- -- responsible and the names of the owner and the passengers. It will make a claim upon the association in the aviator's country or upon the central international office. It will then rest with the society of which the offending aviator is a member to take up the question of blame attaching to that member,but only in so far as that society,in order to pay the indemnity,may have power to recover from that member.

It will be noted that this proposal is based on -- international agreement and each State would need to -- legalise the recovery from its various aeronautical -- -- societies. Certain alternatives have been suggested for giving effect to this last proposal,without any official international agreement or any change in the various States' laws,but at the same time avoiding any question of legal liability and judical procedure. This suggestion is that these Associations could simply make a working agreement between themselves to pay at once for all damage done by aircraft on same being proved,and to pool the expenses. It would be necessary for each State to require every aircraft owner to be a member of a recognised aeronautical

society in that State before registering his aircraft. To raise funds to pay for such damages, members would need to pay additional subscription. But this additional amount would be in the nature of an insurance premium, since the Society would not require any other reimbursement from the aviator -- - responsible for the damage.(*1)

Another proposal for solving this problem is based on the idea of using governmental departments of each State as the channel for the recovery of damages. It is suggested that the person who suffers damage would note the registration number and nationality mark of the foreign machine which caused the damage, and if possible obtain the name of the proprietor and other particulars, for the purpose of -- -- identification. His claim for damages would then be submitted to a Government Department of his country, which would be appointed to deal with such claims. That Department would investigate the facts and possibly hold some sort of enquiry to verify the genuineness of the claim and obtain proof of the amount of damage; and would then submit such claim to the corresponding Department of the foreign country to which the aircraft belongs. That foreign country's Department would accept the statement of claim as sufficient warrant for payment of the amount. In this connection it would be necessary that the assessment of damage should be made by specially qualified valuers, whose official assessment the foreign Department would be satisfied to accept. The foreign Department would then have to call upon the aviator concerned to refund the amount so paid away on his account. To ensure the recovery of such payments some scheme of insurance against third party damage would be essential for such payments could not be borne by public moneys. Before this scheme could be established, the principle of absolute liability of aviators for damage would need to be embodied in the legislation of each country. The aviator concerned

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(*1) Spaight, "Aircraft in Peace and the Law", at p.85

might still decline to make the refund demanded by his Government's Department on the ground of contributory fault on the part of the foreign property owner. But in practice it would be a matter for the insurance company with whom the aviator is insured and which would be liable to pay the amount to the Government Department, to decide whether any claim should be opposed. As insurance companies are experienced in similar questions relating to automobiles and insurance generally, this should not present any serious difficulty, provided claims are properly -- authenticated and reasonably assessed.

The form of the Commonwealth legislation

The manner in which the control of air navigation has been referred to the Commonwealth Parliament by certain States, and the constitutional difficulties resulting from the Commonwealth legislation have been considered(*1). It is now necessary to examine the form of such Commonwealth legislation. It will be noted that the Air Navigation Act 1920 (No:50 of 1920) simply provides that the Governor-General may make regulations for the purpose of carrying out and giving effect to the International Convention of 1919 and the provisions of any amendment of the Convention made under Article 34 thereof and for the purpose of -- providing for the control of air navigation in the -- -- Commonwealth and the Territories therein defined (Section 3). In pursuance of this Act the Regulations, which have been under consideration, are issued. Now the matter of air navigation is referred by the four State Acts to the Commonwealth Parliament, and the Commonwealth Constitution requires that all legislative power shall be exclusively exercised by Parliament. The question therefore arises as to whether the Commonwealth Parliament is -- validly exercising that legislative power in making such a delegation as is contained in the Air Navigation Act.

It has been contended that as the Commonwealth --

(*1) See Pages 3-9 supra

Constitution divides the powers of the Commonwealth into the legislative,the executive,and the judicial power,and vests each of those powers in a distinct body,it impliedly prohibits the delegation of those powers to any other body than that in which they are specifically vested. In 1909,in Baxter v Ah Way(*1),this argument was used. But the prohibition of imports,there under discussion,was contained in the provisions of the Customs Act 1901 itself, and the regulations which were being questioned merely conferred on the Governor-General in Council the discretion to determine to which class of goods,other than those -- specified in the Act,the prohibition should apply. In this instance the High Court upheld the Regulations as being "conditional legislation",but the judgments do not discuss this question of the division of powers. Isaacs J. (as he then was),in the course of his judgment,said :- "The Governor-General does not legislate,using that word in the true sense. There is no subject handed over to him to legislate upon as he pleases without any substantive -- provision by the Parliament itself"(*2). Higgins J. considered that "the Federal Parliament has within its ambit full power to frame its laws in any fashion,using any agent,any agency,any machinery that in its wisdom it thinks fit,for the peace,order,and good government of Australia"(*3).

During the War,under the War Precautions Act No:10 of 1914 and its amendments,the Governor-General was given extremely wide powers of making regulations for securing the public safety and the defence of the Commonwealth. The cases Farey v Burvett(*4),Pankhurst v Kiernan(*5), -- Ferrando v Pearce(*6),and Sickerdick v Ashton(*7),arose out of regulations issued by the Governor-General under such powers. But it does not appear that in any of these

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(*1) 8 C.L.R.626
(*2) At Page 641
(*3) At Page 646
(*4) 21 C.L.R.433
(*5) 24 C.L.R.120
(*6) 25 C.L.R.241
(*7) 25 C.L.R.506

cases the objection was raised that a legislative power had been given to the Executive which was not permitted because of the distribution of powers contained in the Commonwealth Constitution. The main argument centred round the extent of the legislative power relating to defence.

Yet, when in the case of Roche v Kronheimer (1921)(*), it was contended, in relation to regulations issued by the Governor-General under the Treaty of Peace Act 1919, that the Commonwealth Parliament had no power to confer that -- authority on the Governor-General, Knox C.J., Gavan Duffy, Rich, and Starke, J.J., merely stated that "the validity of legislation in this form has been upheld in Farey v Burvett, Pankhurst v Kiernan, Ferrando v Pearce, and Sickerdick v Ashton and we do not propose to enter into any enquiry as to the correctness of these decisions" (Page 337). The form of the legislation there in question was very similar to that relating to air navigation. The Treaty of Peace Act 1919 recites the signing of the Treaty of Peace with -- Germany by representatives of the Commonwealth of Australia and declares that it is expedient that the Government of the Commonwealth should have power to do all such things as are necessary and expedient for giving effect to the said Treaty on the part of the Commonwealth. By Section 2 it is enacted that the Governor-General may make such regulations and do such things as appear to him to be necessary for carrying out and giving effect to the provisions of Part X (Economic Clauses) of the Treaty. The four Judges named conclude their judgment in the following words :- "It follows from what we have said that Section 2 of the Treaty of Peace Act 1919 is within the powers of the Federal -- Parliament and Regulation 20 is authorized by that section, both so far as it purports to re-enact the provisions of Part X of the Treaty and also as far as it purports to -- provide machinery for enforcing those provisions within the Commonwealth" (Pages 337-8).

(*) 29 C.L.R. 329

It will be noted that this Act defines the lines along which the Governor-General's regulations must proceed. The Transport Workers Act 1928-1929 provided that the Governor-General might make regulations not inconsistent with that Act, which, notwithstanding anything in any other Act but subject to the Acts Interpretation Act 1901-1918 and the Acts Interpretation Act 1904-1916, should have the force of law, with respect to the employment of transport workers, and in particular for regulating the engagement, service, and discharge of transport workers, and the licensing of persons as transport workers, and for regulating or prohibiting the employment of unlicensed persons as transport workers, and for the protection of transport workers (Section 3). Under this Section no rules relating to such employment are prescribed: the provisions in the regulations to be issued by the Governor-General are entirely in his discretion, no indication being given of the principles on which they are to be based.

Prof.K.H.Bailey in an Article on "Administrative Legislation in the Commonwealth"(*1) discusses this feature of this Act. At page 39 he states:- "It is just like empowering the Governor-General to impose a Customs tariff. There is in fact no substantive provision whatever in the Act save the grant of power to the Governor-General. Is this really the exercise of conditional legislative power by the Parliament ? Is it in any real sense "a law with respect to trade and commerce"? Would the mere fact that under the Acts Interpretation Act each House would for a limited time have a power of veto over the Governor-General's regulations make any difference? Perhaps the simple answer is that it is still conditional legislation, though in an extreme form; a declaration that it is the will of Parliament that rules should be drawn up with respect to the employment of transport workers, and that the questions

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(*1) Aust.Law Journal Vol.4 Pages 7 and 38

of fact as to what is necessary or desirable in the -- circumstances shall be determined by the Governor-General. But it is submitted that no confident answer can be given to these questions".

The validity of this Section 3 conferring power to make regulations having the force of law was considered in Huddart Parker Ltd v The Commonwealth (1931)(*/). At page 506, Starke J. in referring to the Act said :- "It prescribes no rule in relation to such employment: it remits the whole matter to the regulation of the Governor in Council. Extraordinary though this form of -- legislation undoubtedly is, still it is not beyond the power of Parliament (Roche v Kronheimer)". Dixon J., at -- page 512, stated that Roche v Kronheimer had decided that a statute conferring upon the Executive a power to legislate upon some matter contained within one of the subjects of the legislative power of the Parliament is a law with -- respect to that subject, and that the distribution of -- legislative, executive, and judicial powers in the -- Constitution does not operate to restrain the power of Parliament to make such a law. He therefore held that as the regulation in dispute was within Section 3 of the Transport Workers Act 1928-1929, "the regulation cannot be invalid merely because it proceeds from the Governor-General in Council and not from the Parliament" (Page 512). Rich J. agreed with him on this point (Page 500). -- Evatt J., after stating that in Roche v Kronheimer the Court was invited to hold that such a thorough-going and absolute delegation by Parliament to the Executive Government of the power to make rules having the force of law was inconsistent with the Constitution, said :-"It is sufficient to say that the contention was rejected and the decision is binding upon us and covers this part of the case" (Page 518).

(*/) 44 C.L.R. 492

Though the High Court thus pronounced that the form of this legislation is within the power of the Commonwealth Parliament under the Constitution,it was not until the case of the Victorian Stevedoring and General Carrying Co.Ltd and Meakes v Dignan (1931)(*/),where the Transport Workers Act was again under consideration,that the matter is fully dealt with in the judgments and reasons given. Gavan Duffy C.J. and Starke J.,in their joint judgment,stated,at page 83,that the American constitutional doctrine that no legislative body can delegate to another department of the Government,or to any other authority,the power to enact laws,had never been implied in English law from the division of powers between the several departments of government. They held that "it does not follow because the Commonwealth Constitution does not permit the judicial power of the -- Commonwealth to be vested in any tribunal other than the High Court and other Federal Courts,therefore the granting or conferring of regulative powers upon bodies other than Parliament itself is prohibited. Legislative power is very different in character from judicial power: the -- general authority of the Parliament of the Commonwealth to make laws upon specific subjects at discretion bears no resemblance to the judicial power". Rich J. merely relied on Roche v Kronheimer and considered that the Court should follow that decision (Page 86).

Dixon J. examined the whole position very fully. He considered that the judgment in Roche v Kronheimer -- really meant "that the time had passed for assigning to the constitutional distribution of powers among the separate organs of government an operation which confined the -- legislative power to the Parliament so as to restrain it from reposing in the Executive an authority of an -- essentially legislative character". In his opinion Roche v Kronheimer decided "that a statute conferring upon

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(*/) 46 C.L.R. 73

the Executive a power to legislate upon some matter -- contained within one of the subjects of the legislative power of the Parliament is a law with respect to that subject and that the distribution of legislative, -- executive,and judicial powers in the Constitution does not operate to restrain the power of Parliament to make such a law". At the same time he pointed out that a law confiding authoritiy to the Executive,though within the boundaries of Federal power,may be so wide or so -- uncertain in the subject matter to be handed over,that it is not a law with respect to any particular heads of -- legislative power and consequently is not valid. -- Likewise the distribution of powers may supply -- considerations of weight affecting the validity of an Act creating a legislative authority. He considered that the power of Parliament to authorise subordinate legislation rests largely on the history and usages of British legislation and the theories of English law. "After the long history of parliamentary delegation in Britain and the British colonies,it may be right to treat subordinate legislation which remains under parliamentary control as lacking the independent and unqualified -- authority which is an attribute of true legislative power, at any rate when there has been an attempt to confer any very general legislative capacity. But whatever may be its rationale,we should now adhere to the interpretation which results from the decision of Roche v Kronheimer". (Page 102).

Evatt J. also examined this matter at length. After referring to a number of cases in which the matter had been before the Court,he pointed out that in dealing with this doctrine of separation of legislative and -- executive powers,it must be remembered that,underlying the Commonwealth frame of Government,there is the notion of the British system of an Executive which is responsible

to Parliament. That system is not in operation under the United States Constitution. If the Commonwealth Parliament, in exercise of its legislative power, cannot give executive or other authorities some power to pass regulations, statutory rules, and by-laws which, when passed, have full force and effect, effective government would be impossible. In his opinion, "the true nature and quality of the legislative power of the Commonwealth Parliament involves, as part of its content, power to confer law-making powers upon authorities other than Parliament itself". (Page 119). At the same time every law of the Commonwealth Parliament must be with respect to one or other of the specific subject - matters mentiomed in Sections 51 and 52 of the -- -- Constitution. Section 2 of the Treaty of Peace Act 1919, which was considered in the case of Roche v Kronheimer, in giving the Governor-General power to make regulations, enabled an authority other than the -- -- legislature to exercise the power of legislation. But for the reasons stated this fact could not destroy the constitutional validity of the section. Since the Act, in addition to being a law with respect to -- -- legislative power, was also a law with respect to external affairs, it came under the subject matters committed to the Commonwealth legislature. In his opinion Roche v Kronheimer correctly decided that invalidity does not attach to Commonwealth legislation merely -- because it commits legislative power to authorities other than Parliament.

So far as the delegation of legislative power is concerned, the Commonwealth Parliament, in view of these decisions, must be regarded as having acted within its powers in passing the Air Navigation Act 1920. It will be generally recognised that detailed legislation on this, as on many other present-day matters, calls for

technical knowledge possessed by few members of -- Parliament. This Act is not such an extreme -- delegation as The Transport Workers Act, for Parliament has, by instructing the Governor-General to give effect to the International Convention, defined the lines along which the Regulations must be framed. Even in regard to matters not dealt with by the International Convention there is this implied restraint upon the Governor-General, that the Regulations issued must not be contrary to the International Convention. Consideration has already been given as to whether the various Regulations are -- within the scope of the matters referred to the -- -- Commonwealth Parliament by the four States and as to whether they give effect to the International Convention.

Instructions to Airmen issued by the Controller of Civil Aviation

References have been made to various Instructions to Airmen. These are issued from time to time by the Controller of Civil Aviation. There is no general provision in the Regulations authorising such Instructions to be issued, but the Minister of Defence or any person authorised by him is empowered to determine the -- -- - requirements to be complied with under certain Regulations.

Thus under Part V of the Regulations it is left to the Minister to define the conditions on which the various licences to the personnel of aircraft will be issued. The practical tests, technical examinations, and medical -- examinations to be passed by applicants for the issue and renewal of pilots licences are set out in Instruction -- No:4 of 1931. The names and addresses of the medical practitioners authorised to make examinations are given in Instructions No:26 of 1931 and No:9 of 1932.

A number of the Instructions to Airmen are -- explanatory. Thus Instruction No:4 of 1930 sets out the steps an owner or pilot must take to secure permission to drop leaflets or other matter from aircraft, in --

accordance with Regulations 72 and 73. Again Instruction No:13/1931 indicates what will be regarded as compliance with Regulation 47 in respect of the lights to be displayed on aircraft when flying at night. Instruction No:5 of 1931 states what a licensed pilot must do to obtain authority to give instruction in -- flying as required by Regulation 12 A.

A number of the Instructions give general -- information on various matters. Thus Nos:3 of 1931 7 of 1932, and 8 of 1932 call attention to various -- provisions in the Regulations, while No:10 of 1931 and No:21 of 1931 deal with the procedure for the use of-- flares when airmen arrive at night at aerodromes and have not made previous arrangements for landing. Instructions Nos. 3 of 1930, 12 of 1931, 23 of 1931, 24 of 1931, and 10 of 1932 define prohibited areas over which pilots are required to avoid flying, in accordance with Regulation 9.

Under Regulation 40 the Minister has power to cancel or suspend any licence issued to a member of the -- -- personnel of an aircraft, if he is satisfied that -- -- sufficient grounds have been shown to exist. Instructions to Airmen No:6 of 1931 requiring the display on passenger-carrying aircraft of an official certificate indicating that the pilot is in possession of his "B" (Commercial) pilot's licence, states that failure to observe this Instruction will be dealt with by the -- suspension of the offending pilot's licence. The same applies to any pilot who flies under the Sydney Harbour Bridge (Instruction to Airmen No:8 of 1931), and to any pilot, other than an authorised flying instructor engaged in flying instruction, who except with the written consent of the Minister performs acrobatics in any aircraft -- carrying passengers (Instruction to Airmen No:7 of 1931).

Apparently these are instances in which the Minister would think fit to act under Regulation 40,although these -- Instructions contain no reference to any particular -- regulation.

But in the case of certain Instructions it is -- questionable whether the Minister has any power to issue them. Not that there can be any doubt as to the -- necessity for them,but the Regulations do not appear to contain any authority for their issue. Thus -- Instruction to Airmen No:16/1931 provides that no aircraft is to be used for a cross-country flight unless it is properly fitted with an approved compass in serviceable condition and correctly swung. As already noted,the Regulations contain no provision as to what instruments aircraft must carry,nor is the Minister specifically -- empowered to define what instruments must be carried. Instruction No:17 of 1931 requires all aircraft engaged on regular passenger-carrying services to carry a pistol and the supply of coloured lights therein specified. Although by the Regulations certain coloured lights may be used for giving certain signals,alternative methods are provided and there seems to be no provision in the Regulations -- empowering this particular Instruction. Instruction to Airmen No:25 of 1931 dealing with the signing of a register of cross-country flights and No:20 of 1931 -- dealing with dual control of aircraft seem to be open to the same objection. It is submitted that these provisions should be included in the Regulations themselves as they are distinct rules on these matters and not merely explanatory of or giving effect to existing regulations. In a number of similar cases this has been done. For example,Paragraph 9 of Instruction to Airmen No:4 of 1931 relating to the period for which licences should remain in force has now been included as Regulation 36; the -- requirement contained in Regulation 12A that flying --

instruction may only be given by licensed pilots,authorised for that purpose,was formerly contained only in -- Instruction to Airmen No:5/1931,which also explains what a pilot must do to obtain the necessary authority. -- Regulation 36A dealing with injury or illness of pilots originally appeared only in Instruction to Airmen No:19 of 1931.

By the English Air Navigation Act 1920,the King is generally empowered to make such Orders in Council as may appear necessary for carrying out the International -- Convention and for giving effect thereto,and for providing for the matters specified in that Act. In pursuance of these provisions,the Air Navigation (Consolidation) Order and amendments have been issued. Section 30 of that Order authorises the Secretary of State to issue such directions as he thinks fit for the purpose of -- supplementing or giving full effect to the provisions of the Order. Under this authority are issued the Air Navigation Directions and amendments,to which references have been made throughout this work. It is submitted that a similar general provision might be included in the Commonwealth Regulations,authorising the Minister to issue Instructions to Airmen supplementing or giving full effect to the Regulations.